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ABSTRACT

The application of the accelerated school concept to middle schools is presented in this report. The Accelerated Schools Project was designed to create schools capable of accelerating at-risk students' progress and of assimilating those students into the educational mainstream. Based on the principles of teacher empowerment, unity of purpose, and building on strengths, the program has resulted in improved student achievement, increased parent participation, and reductions in student discipline and retention problems. The report begins with an introductory chapter, followed by a background chapter that offers a critique of current reform efforts and describes a plan for accelerated schools. Chapter 3 presents a review of early adolescent development research, middle grade reform proposals, and the compatibility of such proposals with the accelerated schools process. The fourth chapter describes the process along three dimensions (curriculum, instruction, and organization) and presents implementation plans for a fictional scenario of what an Accelerated Middle School might be like. The final chapter discusses future challenges. An extensive bibliography is included. (LMI)

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TOWARD ACCELERATED MIDDLE SCHOOLS

Wendy S. Hopfenberg, Henry M. Levin, Gail Meister, and John Rogers

August 1990

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TOWARD ACCELERATED MIDDLE SCHOOLS

Table of Contents

Executive Summary i

Chapter 1 INTRODUCTION 1
- Purpose of this Report 2
- Why extend to middle schools? 3
- The Crisis of the At-Risk 4
  - Educational Failure and Social Consequences 6
- Organization of this Report 7

Chapter 2 WHAT'S WRONG AND THE ACCELERATED RESPONSE 9
- How to Produce Educational Failure: The familiar model 9
- How Reforms Can Fail Students in At-Risk Situations 11
  - Raising the Standards 11
  - The Patchwork Approach 12
- Limitations of the Reform Movements 12
- Accelerated Schools as a Response 15
  - Foundations for Accelerating Schools 18
    - Accelerated Principles 18
    - Accelerated Values 21
  - Getting from Here to There 22
    - Initiating the Accelerated Schools Process 22
    - Accelerated School Governance 24
    - The Inquiry Process 25
    - Aids to adopting Inquiry Process and Governance Structure 27
  - New Roles for Administrators 28

Chapter 3 WHY MIDDLE SCHOOLS? 30
- Early Adolescent Development 31
  - Physical Development in Early Adolescence 31
  - Emotional Development in Early Adolescence 32
  - Intellectual Development in Early Adolescence 33
- Issues for Youth At-Risk 33
- Ramifications of Development Issues in the Need to Reform 34
- Review of Proposals for Middle Grades Reform 36
- The Challenge of Urban Middle Schools Today 41
- Are the Current Reforms and Accelerated Schooling Compatible? 43

Chapter 4 IMAGES OF ACCELERATED MIDDLE SCHOOLS 46
- Accelerated Middle Schools 46
  - Curriculum 48
  - Instruction 54
  - Organization 61
- Integrating Accelerated Curricular, Instructional and Organizational Practices into an Accelerated School 68
- A Visit to an Accelerated Middle School 70

(continued)

Table of Contents (continued)

Chapter 5 CHALLENGES AND NEXT STEPS 76
  CHALLENGES 77
    Conceptual Challenges 78
      Organizational Challenges 78
      Curricular Challenges 81
      Instructional Challenges 82
      Other Challenges 82
    "Real World" Challenges 82
      Methodology 83
      Step One: Creating the Dream Middle School 84
      Step Two: Obstacles to Creating Dream Middle Schools 88
      Step Three: Ideas of Ways to Overcome the Obstacles 89
      Step Four: Comments on the Actual Document 92
  NEXT STEPS 93

REFERENCES 95

TOWARD ACCELERATED MIDDLE SCHOOLS

EXECUTIVE SUMMARY

A big factor that makes children "at-risk" of failing in school is that there is a mismatch between the resources and experiences they get at home and the expectations they find at school. For most middle-class children this match is reasonably close. But so-called "at-risk" students enter school without many of the prior experiences and skills on which the standard school curriculum is constructed. Students at-risk are especially concentrated among minority, immigrant, single parent, and non-English speaking families, as well as those in poverty with low parental education. These students face economic and cultural gaps between their own values and experiences and those of mainstream education. This "mismatched" situation makes it unlikely that these students will acquire mainstream skills and opportunities for success. Thus, those caught in at-risk situations as children are seriously at-risk of becoming underprepared and unskilled adults.

Assuming students at-risk will not be able to maintain a normal instructional pace without prerequisite knowledge and learning skills, schools provide such youngsters with remedial or compensatory educational services which typically demand less of students instructionally and pull them out of their regular classrooms. This approach is not equitable and often channels the students in to long-term academic failure. A large and growing population of poorly educated citizens will produce an insufficiently prepared workforce, a deterioration of higher education, and the need to raise taxes to support increases in costs of public assistance and criminal justice.

Schools must change radically to meet the needs of these students, for it is certainly more reasonable to think about changing schools than changing children. One of the strategies some have used to improve schools is to "raise the standards," (e.g. National Commission on Excellence in Education 1983; U.S. Department of Education 1984) without providing support to students to meet those higher standards. Others have tried to implement a host of potentially successful practices based on research, but their efforts tend to be disjointed and unsystematic.

The Accelerated Schools Project was designed as a comprehensive alternative to the way inner city and poor rural schools typically operate. The Accelerated Schools Project was designed to create schools which would enable all children to take advantage of mainstream secondary instruction by effectively closing the achievement gap in elementary school. Instead of slowing down the progress of these students through remedial classes, the Accelerated Schools Project accelerates their progress through creative school organization, stimulating curricula, and powerful instructional techniques. The entire school addresses the needs of these children rather than making isolated and unrelated changes in curriculum or instruction.

The Accelerated Schools Process creates a unity of purpose around the needs of the students; it empowers teachers and other staff, parents, and students to address these needs; and it builds on the strengths of the students (rather than decrying their weaknesses), much as programs for gifted and talented students do. Each school takes responsibility for results and uses regular assessments to inform decisions and keep track of progress. At the present time there are two pilot Accelerated Elementary Schools in the San Francisco Bay Area as well as 37 more schools in Missouri, Illinois, Texas and Utah. This fall, five more Accelerated Elementary Schools will begin to operate under a satellite program in the New Orleans, Houston, Los Angeles, and San Francisico metropolitan areas. Finally, a number of schools in Seattle and other locales will begin to implement the Accelerated Schools model this fall.

In the last two years of the project, we have observed many encouraging outcomes, even though we believe the change process will occur over a five-six year period for each school. First, we have observed dramatic increases in student achievement. For example, one pilot school had the largest increase in language achievement and the second largest increase in mathematics achievement among the 72 elementary schools in that city. Parent participation has also increased spectacularly. For example, the year prior to the initiation of the Accelerated School process, only 17 parents showed up for the back-to-school night at one pilot school. By the begining of the third year, 450 persons attended the same event. Participation in parent conferences increased from 30 percent to 95 percent during the same period. Parents actively participate in school site decisions, parenting programs, and academic events in Accelerated Schools.

Student retentions and discipline problems have declined and attendance patterns have improved. School staff report substantial improvements in the school environment, which they attribute to their active involvement in curricular and instructional decisions. For example, one staff's involvement in decisions about mathematics instruction lead to an experimental mathematics program for students in the upper grades. Their efforts resulted in raising these students' mathematics achievement by at least one grade level. Other teacher-initiated efforts have led to innovative language, family involvement, and self-esteem programs.

Why extend to the middle school?

There are four main reasons we are extending the model to the middle school level. First, Accelerated Elementary School teachers have expressed concern that the gains made in Accelerated Elementary Schools might evaporate in conventional middle schools. Second, many middle schools have asked whether the central features of Accelerated Schools will work at their level too. Third, while elementary schools provide an opportunity for early intervention, the middle school years are a pivotal time for intervention as well. Adolescents develop quickly on emotional, physical, and intellectual measures yielding intensely curious young adults. Educators must respond to this natural curiosity with positive and meaningful school experiences. Without support and guidance, adolescence is also a time when curiosity can lead to an array of negative behaviors, such as drug use, teenage pregnancy and dropping out of school.

Finally, our efforts to develop Accelerated Elementary Schools are going well. This early success at the elementary level, combined with the opportunity to influence adolescent development, and the expressed needs of middle schools, influenced our decision to link our efforts in accelerating elementary schools to the middle school.

The overall goal of the Accelerated Middle School project is to prepare all students to take advantage of the full range of high school and post-secondary education options. For example, all middle school students should master algebra so that they can move on to geometry and other "college track" courses in high school. We must not close any doors on these early adolescents; rather, we must work to equip all middle school students with the academic, social, and emotional skills and qualities they need to pursue any and all career options they may desire.

The Accelerated Schools Project

The Accelerated Schools Project is both a way of thinking about academic acceleration for students at-risk and a concrete process for achieving it. Understanding and applying the three principles of acceleration to everyday life of the school is the first step in the process.

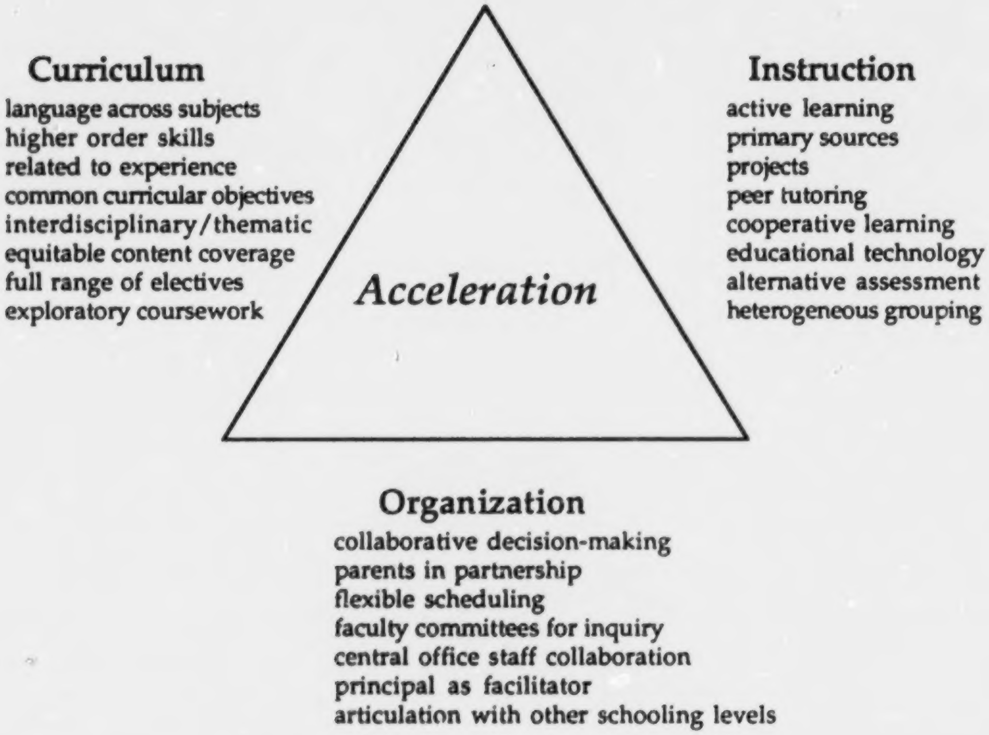
Unity of purpose refers to agreement among parents, teachers, students, and administrators on a common set of goals for the school that will be the focal point of everyone's efforts. Clearly, the unity of purpose should focus on bringing all children into the educational mainstream so that they can fully benefit from their further schooling experiences and adult opportunities. The unity of purpose will take the form of a vision statement and serve as an organizing framework for all curricular, instructional, and organizational endeavors.

Empowerment /Responsibility refers to the ability of the key participants of a school community in the school and at home to: (1) make important educational decisions, (2) take responsibility for implementing those decisions, and (3) take responsibility for the outcomes of those decisions. Unless all of the major actors can be empowered to seek a common set of goals and influence the educational and social processes to realize those goals, it is unlikely that the desired improvements will take place or be sustained.

Building on strengths refers to utilizing all of the learning resources that students, parents, school staff, and communities bring to the educational endeavor. In the quest to place blame for the lack of efficacy of schools in improving the education of students at-risk, it is easy to exaggerate weaknesses of the various participants and ignore strengths.

Unified Change

No one single feature makes an accelerated program. The stress is on the school as a whole rather than on a particular grade, subject, curriculum change, or improvement program. This can be illustrated by the triangle below.


Curriculum
language across subjects
higher order skills
related to experience
common curricular objectives
interdisciplinary/thematic
equitable content coverage
full range of electives
exploratory coursework
Instruction
active learning
primary sources
projects
peer tutoring
cooperative learning
educational technology
alternative assessment
heterogeneous grouping
Acceleration
Organization
collaborative decision-making
parents in partnership
flexible scheduling
faculty committees for inquiry
central office staff collaboration
principal as facilitator
articulation with other schooling levels

The base represents the way a school is organized or structured including how it makes decisions, involves the community, and interacts with the central office. The right side incorporates instructional strategies and includes some examples of teaching and learning in accelerated schools. The left side encompasses the curriculum of the school with its examples.

Most educational reforms focus only on a specific side of the triangle in a piecemeal way. For example, it's not uncommon to read about a reform that only talks about restructuring schools (base of the triangle), or using new curricula (left side), or implementing new instructional approaches (right side). But usually these are done separately and independently with relatively little impact on the overall school program or student learning. The Accelerated School explicitly rejects this piecemeal approach. It offers a unified approach in which all three parts work dynamically together on behalf of students, school staff, and parents.

The Inquiry Process is the primary mechanism the Project uses for moving the school toward accelerated practice along all three dimensions of the triangle (curriculum, instruction, and organization). Through the Inquiry Process, teachers, administrators, and parents identify and define educational challenges, look for alternative solutions, and implement and evaluate those solutions. The process entails a wide range of issues which touch upon all facets of the school – on culture as well as pedagogical practices. Task forces, called cadres, use the Inquiry Process to delve into specific areas of challenge for their school.

The following paper is a revised edition of our initial concept paper regarding the extension of the Accelerated School Project to the middle grades. This final concept paper is a result of collected critiques of the initial paper and focus group input from schools site professionals across the country. We are in the process of creating a resource guide and training program to help schools implement the Accelerated Schools Project. Finally, in the fall of 1990, we will begin working with a pilot middle school in the San Francisco Bay Area.

Chapter 1

INTRODUCTION

The Accelerated Schools Project was designed to create schools for "at-risk" students that will accelerate their progress and bring them into the educational mainstream by the end of elementary school. Instead of slowing down the progress of these students through remedial classes, the Accelerated Schools Project accelerates their progress through creative school organization, stimulating curricula, and powerful instructional techniques. The entire school addresses the needs of these children rather than making isolated and unrelated changes in curriculum or instruction.

The Accelerated Schools Process creates a unity of purpose around the needs of the students; it empowers teachers and other staff, parents, and students to address these needs; and it builds on the strengths of these students (rather than decrying their weaknesses), much as programs for gifted and talented students do. Each school takes responsibility for results and uses regular assessments to inform decisions and keep track of progress. At the present time there are two pilot Accelerated Schools in the San Francisco Bay Area as well as 37 more schools in Missouri, Illinois, Texas and Utah. This fall, five more Accelerated Schools will begin to operate under a satellite program in New Orleans, Houston, Los Angeles, and San Francisico metropolitan areas. Finally, a number of schools in Seattle and other locales will begin to implement the Accelerated Schools model this fall.

In the last two years of the project, we have observed many encouraging outcomes, even though we believe the change process will occur over a five-six year period for each school. Early indicators show increases in student achievement. For example, our pilot school in San Francisco had the largest increase in language achievement and the second largest increase in mathematics achievement among the 72 elementary schools in that city. Our pilot in Redwood City, California improved its mathematics achievement from the 10th to the 27th percentile. An Accelerated School in the Houston, Texas area raised student achievement in all subject areas by substantial amounts. An Accelerated School in Fairbanks, Missouri exhibited the most dramatic improvements in achievement of all elementary schools in that city.

The schools have also enjoyed spectacular increases in parent participation. For example, the year prior to the initiation of the Accelerated School process, only 17 parents showed up for the back-to-school night at one pilot school. By the begining of the third year, 450 persons attended the same event. Participation in parent conferences increased from 30 percent to 95 percent during the same period. Parents actively participate in school site decisions, parenting programs, and academic events in Accelerated Schools.

Student retentions and discipline problems have declined and attendance patterns have improved. School staff report substantial improvements in the school environment, which they attribute to their active involvement in curricular and instructional decisions. For example, one staff chose mathematics as a priority area for schoolwide inquiry and implemented an experimental program for students in the upper grades. Students in the program improved their mathematics performance by at least one grade level. Other inquiry efforts have led to innovative language, family involvement, and self-esteem programs.

Purpose of this Report

The purpose of this report is to extend the Accelerated School concept to middle schools. During 1989 and early 1990, we developed a design for an Accelerated Middle School by building on our knowledge of Accelerated Elementary Schools, evaluating the needs of early adolescents, synthesizing some of the ideas from the reform movement about "exemplary" middle schools, and visiting middle schools around the country.

In order to test our ideas against "reality," we shared our initial concept paper with a variety of educators around the country in two ways. First, we conducted focus groups with teachers, principals, and central office administrators in the Boston Public Schools, the Oakland Unified School District, and the San Jose Unified School District. Because the actors at the school site are the real agents of change, we greatly value their expert reactions and advice on the initial concept paper. The participants responded overwhelmingly positively to the concept paper. Specifically, they viewed the Accelerated Schools model as a road from "here to there." Second, we asked for comments from educators in a wide range of roles – policy, advocacy, educational associations, foundations, higher education, school systems, and research institutions. These reviewers provided support and specific, constructive feedback for the report. We have synthesized the feedback from both the focus group participants and reviewers and re-worked our initial concept paper into a more focused design for an Accelerated Middle School.

It should be fully understood that this is still a concept paper and not a prescriptive report. However, we are in the process of creating a resource guide that will answer the more detailed implementation questions. The middle school design we propose in this report is a framework which fits well with the "high content–high expectations–high support" middle school envisioned by the Edna McConnell Clark initiative.

Why extend to middle schools?

In the early stages of the Accelerated Schools Project, we limited our work to elementary schools for philosophical and practical reasons. On the philosophical side, we believed that by the time a child reaches middle school, much of his or her educational pattern has been molded. Unfortunately many students at the middle school level have already fallen behind grade level an average of more than two years, and they have typically experienced failure, humiliation, and rejection. We initially aimed to avoid this situation in the first place through early intervention, rather than address it later after so much damage has been done. On the practical side we needed to become familiar with applying the Accelerated School concept to a single level of school, the elementary level, before coping with the more complex issues raised by the different types of school organization at various levels.

Although these underlying reasons are still pertinent, four factors have motivated us to expand our efforts to the middle school. First, Accelerated Elementary School teachers have expressed concern that the gains made in Accelerated Elementary Schools might evaporate in conventional middle schools, just as gains from exemplary pre-school programs for students at-risk, such as Head Start, have tended to disappear in conventional elementary schools. Second, many middle schools have asked whether the central features of Accelerated Schools will work at their level too. Several of these schools are linked to the Edna McConnell Clark Middle Schools initiative.

Third, while elementary schools provide an opportunity for early intervention, the middle school years are a pivotal time for intervention as well. Adolescents develop quickly on emotional, physical, and intellectual measures yielding intensely curious young adults. Educators must respond to this natural curiosity with positive and meaningful school experiences. Without support and guidance, adolescence is also a time when curiosity can lead to an array of negative behaviors, such as drug use, teenage pregnancy and dropping out of school. And failure at this age can have long-term consequences. Moreover, success is fragile, in that, isolated positive school experiences may not be enough to motivate an adolescent at-risk of school failure; the entire school must focus its energies on the diverse needs of these students.

Finally, our efforts to develop Accelerated Elementary Schools are going well. This early success at the elementary level, combined with the opportunity to influence adolescent development, and the expressed needs of middle schools, influenced our decision to link our efforts in accelerating elementary schools to the middle school.

THE CRISIS OF THE AT-RISK

Historically American schools have been expected to do many things. They have been asked to create citizens and workers, Americanize immigrants, fuel economic growth, advance technology and culture, and forge a literate society. So it is hardly a surprise to find that as society faces the rapidly rising crisis of disadvantaged children, schools are asked to solve the problem. Our culture has a deeply held belief that education is the gateway to better opportunities in life.

But so-called "at-risk" students enter school without many of the prior experiences and skills on which the standard school curriculum is constructed. "At-risk" students are especially concentrated among minority, immigrant, single parent, and non-English speaking families, as well as those in poverty with low parental education. A big factor that makes children "at-risk" of failing in school is that there is a mismatch between the resources and experiences they get at home and the expectations they find at school. For most middle-class children this match is reasonably close. Yet too many children face economic and cultural gaps between their own values and experiences and those of mainstream education. This "mismatched" situation makes it unlikely that these students will acquire mainstream skills and opportunities for success. Thus, those caught in at-risk situations as children are seriously at-risk of becoming underprepared and unskilled adults.

Schools can further debilitate students' chances for success by providing educational experiences that build on the youngsters' weaknesses rather than their strengths, thereby slowing down their progress rather than accelerating it (Levin 1988). For example, schools may relegate a student who has trouble reading to a remedial class full of non-stimulating worksheets with no deadline for getting back on grade level.

Without strong interventions in their behalf these students are often channeled to fail academically. The interventions must come from schools. It is more reasonable to think about changing schools than changing children. Schools can start by refocusing their view of the mismatch. Many of the habits a youngster brings from home – although different from what's expected at school – are integral to that child's understanding of his world and his way of learning. So why not build on that strength instead of trying to hammer the child into a different mold?

Although students in at-risk situations are concentrated among minority, immigrant, single parent, and poor populations (Pallas, Natriello, and McDill 1989), we must keep in mind that these characteristics do not define students as "at-risk." Many students from each of these populations are not at-risk, and *we must not stereotype children from these populations in a needless way that precludes their educational success.* In an Accelerated School, the school community has equally high expectations for all children, so the danger of stereotyping should be eliminated.

The population of students who have problems with school is increasing much faster than the mainstream population for three reasons. First, the U.S. is experiencing waves of immigration from some of the poorest countries in Asia and Latin America which may ultimately rival the immigration waves of the nineteenth and early twentieth century. Officially, the U.S. admits about 600,000 immigrants a year with perhaps equal numbers entering the country without documentation. The immigrants come largely from rural areas of poor societies with extremely limited educational opportunities. Many immigrants enter the U.S. with only a primary education or less. For example, a study of Mexican immigrants in California found that 72 percent had completed 8 years of schooling or less (Muller 1985).

A second source of growth in students who do not perform well in school is that of high birth rates. Groups from which students at-risk are drawn such as minorities, immigrants, and the poor tend to be younger and have higher birth rates than other populations. Consequently, they have more children than does the older population of the nation, whose birthrate is declining.

Structural changes in U.S. society and the economy represent a third source of growth of the populations at-risk. For example, the number of female-parent families has increased from 5.6 to 9.5 percent and the poverty rate among children has risen by about one-third in the last 15 years from 15 percent to more than 20 percent. (Levin 1986; Pallas, Natriello, and McDill 1989).

Educational Failure and Social Consequences

The mismatch between the skills and experiences most poor and minority children bring to school and the standard expectations of mainstream education leads to disastrous consequences for those students. Because they enter school without the skills on which traditional curriculum and instruction are based, students in at-risk situations end up falling farther and farther behind over time. By sixth grade they are about 2 years behind grade level on achievement tests and 4 years behind by the end of grade 12 – if they reach that point. About half of these students drop out before high school graduation. This sustained lack of school success makes these students highly susceptible to drug use, juvenile crime, and teen pregnancy. Just as the home-school mismatch often leads to problems in school, continued academic failure often leads to problems in adulthood.

Unless we intervene successfully, the students will not be the only ones who lose. The inadequate education of so many students will lead to dire economic consequences in higher education, the labor force, and in public services. Larger and larger numbers of poorly educated students will mean that public institutions of higher education will have to become either more restrictive in their admissions criteria or more devoted to remedial academic work. Restrictive admissions will not only be politically contentious at a time of increasing population growth and political power of traditionally underrepresented populations, but it may restrict the supply of college-educated workers that the economy demands. Alternatively, increasing numbers of remedial courses and students will raise costs substantially to the colleges and universities and to the students who must forego earnings for a longer period to get a college education.

Expanding numbers of students at-risk can also lead to a serious deterioration of the future labor force. As minority, immigrant, and poor populations grow and continue to experience low achievement and high dropout rates, a larger and larger portion of the labor force will be unprepared for available jobs. All workers – including clerical workers, cashiers, and salespeople – need basic skills in oral and written communication and computation and reasoning. Yet, too many students leave schools without acquiring these basic and necessary skills. A 1976 U.S. Government study found that while 13 percent of all 17 year olds were classified as functionally illiterate, about half of all 17 year old Blacks and Hispanics were found illiterate (National Assessment of Educational Progress 1976). Without successful interventions to improve the plight of the educationally underprepared, employers and the economy will suffer lagging productivity, higher training costs, competitive disadvantages, and lost tax revenues. The nation's competitiveness will surely suffer, yet states, regions, and localities most impacted by underprepared labor forces will face the worst labor shortages.

These economic losses will come at a time of rising costs of public services. More and more citizens will need to rely upon public assistance for survival, and increasing numbers of undereducated teens and adults will pursue illegal activities to fill idle time and obtain the income that is not available through legal pursuits (Berlin and Sum 1988).

ORGANIZATION OF THIS REPORT

In the next chapter (two), we provide a background for accelerating the education of students in at-risk situations. We begin by describing the present deficiencies of schools serving these students. We then describe some of the general reform proposals for improving the education of youth at-risk and the limitations of these proposals. Finally, we provide a detailed description of accelerated schooling along with strategies for moving from the present situation to an accelerated one.

In chapter three, we review the research on early adolescent development, paying particular attention to the special circumstances faced by adolescents in at-risk situations and the ramifications the developmental issues might have on middle grades education. We then summarize the recommendations from a number of recent reform proposals, including the Program for Disadvantaged Youth of the Edna McConnell Clark Foundation. Next, we describe three different inner city middle school situations. We conclude the chapter by discussing the compatibility of the reform proposals and the Accelerated Schools process as vehicles for moving from the present situation to a more productive and equitable one.

In chapter four, we describe Accelerated Middle Schools along three dimensions of schooling (curriculum, instruction, organization). As an aid to the discussion, we frame some of our comments around contrasts between conventional and accelerated practices. We then discuss how to integrate accelerated curricular, instructional, and organizational practices into an Accelerated Middle School. The final part of the chapter presents a fictional account of a day in an Accelerated Middle School to illustrate how the practices we describe might come to life.

Finally, in chapter five, we consider both conceptual and "real world" challenges conventional middle schools may face as they work to transform themselves into Accelerated Middle Schools. We conclude by outlining our next steps in the move toward creating Accelerated Middle Schools.

Chapter 2

WHAT'S WRONG AND THE ACCELERATED RESPONSE

In this chapter, we provide a rationale for Accelerated Schools. We begin by describing the present deficiencies of schools serving students in at-risk situations. We then describe some of the general reform proposals for better educating youth at-risk and the limitations of these proposals. Finally, we provide a detailed description of accelerated schooling along with strategies for moving from the present situation to an accelerated one.

HOW TO PRODUCE EDUCATIONAL FAILURE: THE FAMILIAR MODEL

Many students are educationally at-risk because they begin school with learning gaps in areas valued by schools and mainstream economic and social institutions. Assuming these students will not be able to maintain a normal instructional pace without prerequisite knowledge and learning skills, schools provide such youngsters with remedial or compensatory educational services. Schools' compensatory education programs usually demand less of students instructionally and pull students out of their regular classrooms or adapt regular classrooms to their "needs." This approach appears to be both rational and compassionate, but it has exactly the opposite effect.

First, this process reduces learning expectations on the parts of both the children and the educators who are assigned to teach them, and it stigmatizes both groups with a label of inferiority. Such a stigma undermines social support for the activity, denotes a low social status to the participants, and imparts negative self-images for the participants. The combination of low social status and low expectations is tantamount to treating such students as discards who are marginal to the mainstream educational agenda. Thus, the approach creates the unhealthiest of all possible conditions under which to expect significant educational progress. In contrast, an effective approach must focus on creating learning activities which are characterized by high expectations and high status for the participants.

Second, the usual treatment of low achievers is not designed to bring students up to the point where they can benefit from mainstream instruction and perform at grade-level. The sad fact is that once students are assigned to remedial classes, they seldom graduate to the mainstream. This is because compensatory and remedial classes move at a slower than "normal" pace, making the children fall farther and farther behind their more advantaged fellow students. The result is that once a student is relegated to remedial or compensatory interventions, that student will be expected to learn at a slower rate, and the achievement gap between mainstream and low achieving students will grow. A successful program must set a deadline for closing the achievement gap so that, ultimately, *all* children will be able to benefit from mainstream instruction.

Third, by deliberately slowing the pace of instruction to a crawl, instruction heavily emphasizes endless repetition of material through drill-and-practice exercises. Exposure to concepts, analysis, problem-solving, and interesting applications is largely proscribed on the premise that children must learn rote skills before they can try anything more challenging or stimulating. Mechanics are stressed over content and student involvement. Consequently, these students' school experience lacks intrinsic vitality, omits crucial learning skills and reinforcement, and moves at a plodding pace that reinforces low expectations. Such a joyless experience further negates the child's feelings about school and diminishes the possibility that the child will view the school as a positive environment in which he or she can learn. An effective curriculum for those considered to be low achievers must not only be faster paced and actively engage the interests of children to enhance their motivation, but it must also include concepts, analysis, problem-solving, and interesting applications.

Fourth, most compensatory educational programs do not draw upon the great potential of teachers, parents, and community resources. Schools do not utilize parents as potentially positive influences for their children's learning. Furthermore, the professional staff at the school level does not usually participate in the important educational decisions that it must ultimately implement. Such an omission means that teachers must implement programs which do not necessarily reflect their professional judgments, a condition which is not likely to spur great enthusiasm. The design and implementation of successful educational programs to address the needs of the educationally at-risk will require the involvement of parents, the use of community resources, and the extensive participation of teachers in designing the interventions that they will implement.

HOW REFORMS CAN FAIL STUDENTS IN AT-RISK SITUATIONS

We clearly are not on the right track to meeting the challenges of students caught in at-risk situations. Although the nation initiated an educational reform dialogue during the 1980s in an effort to remain internationally competitive (e.g. National Commission on Excellence in Education 1983; U.S. Department of Education 1984), attempts at reform have not successfully addressed the specific needs of students in at-risk situations. Consequently, educators continue to search for solutions in the 1990s. Moreover, the reforms have not changed long-held attitudes, meanings, and beliefs that prevail in inner city and poor rural schools. It is useful to explore two types of reform that have made generic claims for improving the education of all students while ignoring the needs of those we call "at-risk."

Raising the Standards

Extensive reforms that were advocated by national commissions and adopted by state legislatures in the 1980s sought to raise standards at the secondary level, without providing additional resources or new strategies to help low achieving students meet the higher standards (National Commission for Excellence in Education 1983; National Coalition of Advocates for Students 1985). Such reforms failed to address not only the challenges facing children at-risk, but may have actually exacerbated the problem. Ernest Boyer (1988) summarizes this criticism as follows:

> The harsh truth is that school reform is failing in the inner city because the diagnosis is wrong. Formulas for renewal—more homework, more testing, more requirements for graduation—work best for schools that are already succeeding and for students who are college bound. But to require a troubled student in an urban ghetto to take another unit in math or foreign language, without more guidance or support, is like raising a hurdle in the high jump without giving more coaching to someone who has stumbled.

Thus, it is not surprising that the status of those students at the bottom of the achievement charts has not improved under the latest reforms. Successful strategies for improving the educational plight of children at-risk should begin at the elementary level and be dedicated to preparing children for doing high quality work in secondary school. Simply raising standards at the secondary level without changing the way schools operate so that students can reach the new standards, is likely to increase their chances of dropping out (McDill, Natriello, and Pallas 1985).

The Patchwork Approach

A second stage of reform has produced a wide range of unrelated change initiatives aimed at improving the educational practices within inner-city and poor rural schools. In implementing these reforms, educators have drawn upon research on effective schooling practices to create an agenda for restructuring the schools. However, due to the dearth of time, resources, and information, the results of this approach tend to be disjointed and unsystematic.

Administrators, principals, and teachers are reaching out for whatever programs they can (e.g. computer-assisted instruction, cooperative learning, extended day programs) without planning and integrating these strategies into a larger vision. Most schools do not have the time, support, or capacity to think through carefully what particular problem they need a solution for or how that solution fits together with other school efforts. In a typical situation, the district superintendent attends a conference where she hears reports of substantial gains associated with a computer-assisted program for remedial reading; she purchases computers and software and arranges with the program developers to conduct workshops for her staff. Or, a principal in the district finds reports of a successful peer tutoring program in his professional journal; he instructs his third and fourth grade teachers to attend a training session and implement the program. Or, a second grade teacher listens to a colleague from a nearby district tout the remarkable effects of a new math curriculum; she convinces her principal to buy the program's teacher manual and kit of manipulatives. Struggling to improve upon present practice, well-intentioned educators draw upon any and all promising models and add them on to the existing practices in their schools without thinking about how they fit together – let alone about what unifying purpose they address.

LIMITATIONS OF THE REFORM MOVEMENTS

"How can it be...," wonders Larry Cuban, "that so much school reform has taken place over the last century yet schooling appears to be pretty much the same as it has always been (Cuban 1988)?" The answer to Cuban's question, and the key to eliciting lasting and meaningful change in the schools, lies in the inextricable connection between educational practice and the school *culture* in which these practices come to life. Practices cannot change without deeper transformations in the attitudes, meanings, and beliefs of schooling.

The present set of attitudes, meanings, and beliefs that prevail in schools serving youth at-risk are indicative of a technocratic mindset. Educators adopting the technocratic model view schooling as a "controlled experiment in which the teacher-technician brings some scientifically determined and generalizable technique to bear upon the student-subject (Eisner 1983)." Teaching is treated as a mechanical process that can be perfected with the aid of science.

While effective programs have resulted from this model, the following undesired outcomes may result from rigid adherence to the technocratic mindset:

- Teachers will be viewed as technicians, rather than professionals. They will lose both the freedom and inspiration to adjust to the different situations they face in varied classrooms.

- Coursework will tend to emphasize facts and competencies, rather than more intellectually stimulating material.

- Schools will teach in ways that do not necessarily line up with the strengths, knowledge, weaknesses, desires, and interests of the staff, parents, and students.

- Schools will care more about outputs (generally standardized and cognitive), than the intrinsic value of the process. No one will know how well students understand concepts or whether they can apply them in ways that are useful to themselves and others.

- Knowledge will become external to students in that it will be something they memorize, rather than something they create.

While the deadening effects of the technocratic mindset can be found throughout the educational system, they are particularly prevalent in schools serving poor and minority children. Students at-risk are more likely than their mainstream counterparts to receive remedial instruction characterized by a focus on mechanics and repetition (Levin 1988). More colloquially, "*Smart kids* get to participate; *remedial kids* get to memorize (Fine 1988)." This observation is corroborated in a study that compares pedagogical beliefs and instructional practices within schools serving working class, middle class, or upper class students (Anyon 1981). Students in an upper middle class community believed that knowledge comes "from your head" and that "you make it in your brain[,]" but students in the working class schools thought that knowledge came from outside their own lives—from books, or the teacher, or the Board of Education (Anyon 1981).

The case can also be made that teachers serving poor and minority children likewise tend to be supervised more rigidly than their colleagues in middle class schools. This can be seen in various state legislatures' attempts to exert greater control on curriculum and instruction (Cuban 1986). Higher test scores in most middle class schools provide teachers with the "academic protection" necessary to experiment with innovative approaches without unwanted intrusions. Teachers in the relatively lower scoring inner-city or poor rural schools, however, lack this protection and will more likely feel the force of legislative mandates. For example, if a state legislature mandates higher standards as a reform effort for all schools, the pressures on urban and poor rural district superintendents will be tremendous. In an effort to assuage public pressures, central offices push technocratic processes on schools as the quickest and least risky of vehicles to raise achievement. In a similar effort to relieve themselves of central office pressures, teachers resort to "teaching to the tests" using such methods as worksheets, vocabulary lists, and drill-and-practice.

Full adherence to the technocratic model extracts all power from the school through endless mandates and regulations from "above." Principals and teachers are so busy trying to meet the mandates that they have little or no chance to exercise professional discretion. Yet, the process of education is situated with teachers at the school site. That is, students attend schools, not central offices and interact with teachers, not curriculum supervisors. Technocratic mandates tear at the very heart of the educational system by removing from school site staff any sense of responsibility for educating our nation's children.

Some schools, however, rise above the load of mandates and regulations and take the risk of adopting new programs on their own. While these programs may be useful and effective, they end up as "add-ons" to a school's curriculum, instruction, ***or*** organization. Limited time and resources coupled with great pressures to raise test scores do not allow schools to coordinate deep, long-lasting, and comprehensive changes to curriculum, instruction, ***and*** organization. When members of the school community seek to improve the school, they typically focus on only one of these three areas, which results in the patchwork approach above.

But changes in one area of the school program generally demand changes in other areas. For example, a school concerned with improving student performance on reading tests will not reach its goals simply by changing curriculum. To be effective, a new curriculum will likely demand new modes of instruction and might require staff re-organization to enable some teachers to receive more training.

This interdependence implies that change must move forward simultaneously on three fronts—curriculum, instruction, and organization. Few add-on programs addressing only one of these three dimensions are successful for any significant length of time. Funding runs out, or a key personality leaves the school. At that point, the program often dies because the school never developed the supportive structures to accept fully and build on the new program. Thomas R. Guskey (1990) offers a similar view regarding the patchwork approach when he posits that school improvement strategies must be carefully and systematically integrated in order for substantial learning improvements to occur.

Moreover, add-on programs do not affect the all important culture and attitude of schools including beliefs about communication among staff, reflection, and the spirit of risk-taking. Although ambitious, only a totally comprehensive approach toward reforming a school's culture as well as its curriculum, instruction, and organization will foster and enable valuable and long-lasting school change.

ACCELERATED SCHOOLS AS A RESPONSE

The Accelerated Schools Project is a comprehensive approach to school change begun at Stanford University in 1986 to improve schooling for children caught in at-risk situations. The Accelerated Schools Project is both a way of thinking about academic acceleration and a concrete process for achieving it. Each Accelerated School sets its own unique goals, and the Accelerated Schools Project helps provide the capacity-building and guidance to reach those goals. Designed as an alternative to present practice, the Accelerated Schools Project builds on the knowledge base that argues in favor of a different set of assumptions for achieving school success for all students (Edmonds 1979; Levin 1987 & 1988; Slavin 1987). At its heart is the notion of doing for low achieving students what we presently attempt to do for gifted and talented students, striving to accelerate their progress rather than slow it down. The goal of the Accelerated Schools Project at the elementary level is to enable all students to take advantage of mainstream secondary education instruction by effectively closing the achievement gap in elementary school.

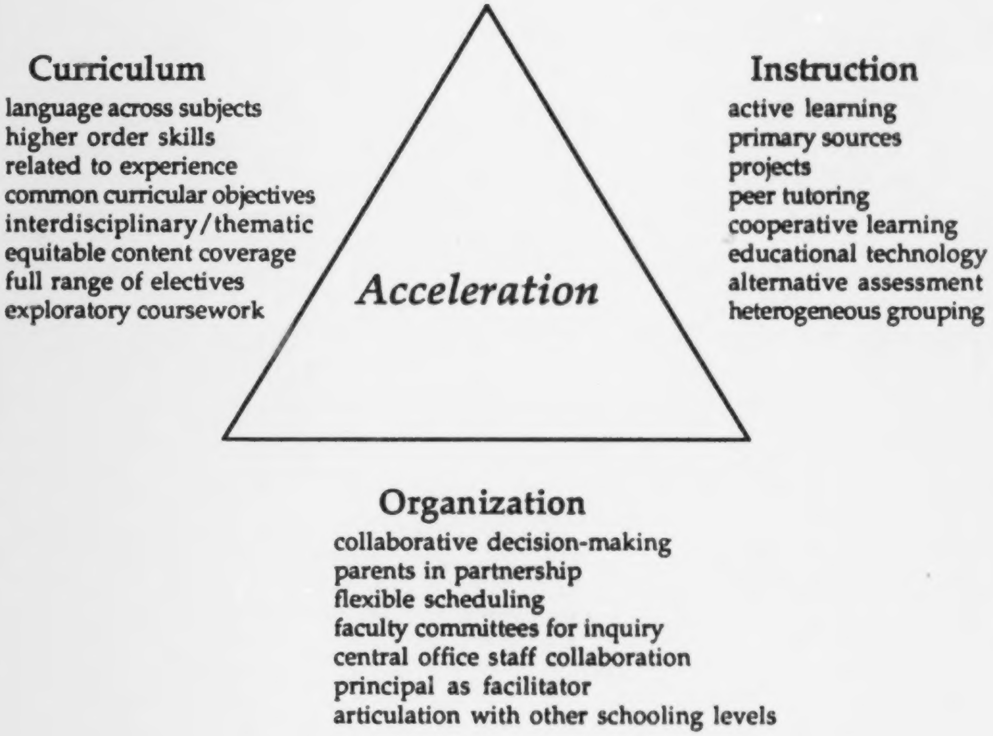
To accomplish this, schools must change radically. Schools should display the following characteristics: high expectations on the part of teachers, parents, and students; deadlines by which students are expected to meet particular educational requirements; stimulating and relevant instructional programs; and involvement of the teachers, parents, and the community in the design and implementation of programs. We will describe these characteristics more fully in the remainder of this chapter and in Chapter 4. The Accelerated School approach is also expected to create a strong sense of self-worth and educational accomplishment for students who may now feel rejected by schools and frustrated about their own abilities. Students with stronger self-esteem, we believe, are less likely to seek such harmful activities as dropping out or drug use. Finally, the accelerated approach is based on a set of values, attitudes, and beliefs that together guide the push towards raising the achievement of all students.

No one single feature makes an accelerated program. Rather, a comprehensive integration of curricular, instructional, and organizational practices, consistent with a school's unique vision, creates the Accelerated School. While the Accelerated School process is not prescriptive and each school will differ according to its unique needs, every Accelerated Elementary School should aim to bring all children to into the educational mainstream by a set deadline and should adhere to a core of curricular, instructional, and organizational practices.

The entire *curriculum* of an Accelerated School should be enriched and emphasize language development in all subjects—math and science included. Instead of treating students as the objects of their education, Accelerated Schools should make students the subjects of their own education. Schools can accomplish this by using interesting applications tied to students' cultures and their every day experiences. Accelerated curricula should also focus on problem-solving and higher order analytical skills. Finally, Accelerated Schools should have common curricular objectives for all students.

Instructional practices within the Accelerated School should promote active learning experiences. For example, students should construct, experiment, and discover. They should become teachers and helpers of fellow students through cross-age tutoring and cooperative learning, which have been shown to be especially effective with low achieving students (Slavin and Madden 1989). Teachers should serve as facilitators of student activities rather than the sole givers of knowledge. Finally, since the assessment of student achievement is a key instructional tool in assuring continous improvement, alternative assessment tools should be used whenever possible. Without these tools, teachers can not accurately measure student learning using innovative curriculum and instruction.

The *organization* of the Accelerated School should be characterized by broad participation in decision-making by administrators, teachers, and parents. Interested members of the school community should participate in problem-solving task forces, which we call "cadres," that focus on different facets of school renewal. Moreover, central offices should support these activities. The figure below depicts this comprehensive approach to change.



Curriculum
- language across subjects
- higher order skills
- related to experience
- common curricular objectives
- interdisciplinary/thematic
- equitable content coverage
- full range of electives
- exploratory coursework

Instruction
- active learning
- primary sources
- projects
- peer tutoring
- cooperative learning
- educational technology
- alternative assessment
- heterogeneous grouping

Organization
- collaborative decision-making
- parents in partnership
- flexible scheduling
- faculty committees for inquiry
- central office staff collaboration
- principal as facilitator
- articulation with other schooling levels

An Accelerated School should aim to meet all the varied needs of its students. These needs include academic, social, emotional, language and self-esteem needs. Accelerated Schools do not siphon children off into special education or gifted and talented programs. Rather, Accelerated Schools' staff work to create a cohesive school community where students want to be – schools with heterogeneous, accelerated instruction for all. We have found that when student needs are met, that the needs of parents, staff and administration are met as well.

FOUNDATIONS FOR ACCELERATING SCHOOLS

Becoming an Accelerated School is an ambitious undertaking which entails transforming the way administrators, teachers, and parents think about school. Clearly such a transformation suggests systemic change in school culture and practice (Cuban 1988). Understanding and applying the principles of acceleration to everyday life of the school is the first step in the process.

Accelerated Principles

The Accelerated Schools model is constructed on three guiding principles and a set of fundamental values underlying those principles which are necessary to establish the curricular, instructional, and organizational changes. Active practice of the three principles – unity of purpose, empowerment/responsibility, and building on strengths – and the values on which they are based can serve as vehicles to becoming an Accelerated School.

Unity of purpose refers to agreement among parents, teachers, students, and administrators on a common set of goals for the school that will be the focal point of everyone's efforts. Clearly, the unity of purpose should focus on bringing children into the educational mainstream so that they can fully benefit from their further schooling experiences and adult opportunities. The all inclusive process of defining a common purpose is extremely important in and of itself. By including all of the parties from the start who are involved in either the planning and design of educational programs, the implementation of those programs, and/or the evaluation of those programs, one can ensure more cohesive educational efforts and a greater commitment to those efforts. Unity of purpose stands in contrast to disjointed planning, implementation and evaluation of educational programs, where various members of the school community have different educational goals.

In defining a unity of purpose, the school community should take care to create active goals that provide opportunities for daily practice rather than passive goals, which are little more than words on paper. The unity of purpose should also encourage various parties to work together in the educational process. Finally, the unity of purpose, in the form of a vision statement, serves as an organizing framework for all curricular, instructional, and organizational endeavors. Schools will use the vision statement as an ultimate goal toward which all decisions will be aimed.

Empowerment /Responsibility refers to the ability of the key participants of a school community in the school and at home to (1) make important educational decisions, (2) take responsibility for implementing those decisions, and (3) take responsibility for the outcomes of those decisions. The purpose is to break the present stalemate among administrators, teachers, parents, and students in which the participants tend to blame each other as well as other factors "beyond their control" for the poor educational outcomes of students. Unless all of the major actors can be empowered to seek a common set of goals and influence the educational and social processes to realize those goals, it is unlikely that the desired improvements will take place or be sustained.

An Accelerated School must build an expanded role for all groups to participate in and take responsibility for the educational process and educational results. Such an approach requires a shift to a school-based decision approach with heavy involvement of teachers and parents and new administrative roles.

Building on strengths refers to utilizing all of the learning resources that students, parents, school staff, and communities bring to the educational endeavor. In the quest to place blame for the lack of efficacy of schools in improving the education students at-risk, it is easy to exaggerate weaknesses of the various participants and ignore strengths. Parents have considerable strengths in serving as positive influences for the education of their children, not the least of which are a deep love for their children and a desire for their children to succeed. Parents have the potential to help teachers better understand their children and to help motivate their children to learn. Teachers are capable of insights, intuition, teaching, and organizational acumen that are lost when schools exclude teachers from participating in the decisions they must implement. Both parents and teachers are largely underutilized sources of talent in the schools.

The strengths of at-risk students are often overlooked because these students are perceived as lacking the learning behaviors associated with middle-class students rather than as having unique and different assets which can be used to accelerate their learning. Schools overlook the strengths of these students in a variety of ways. First, teachers often find themselves underprepared to understand the culture and values of poor, minority, immigrant, and non-English speaking students. These students have many strengths though they may be different from those valued by a predominantly white middle class culture. Educators must work to understand cultural differences and build upon them as strengths.

In addition to rich cultural diversity, another untapped resource in our schools is the many styles of learning *all* children bring with them to school. Schools typically focus on traditional lecture and "book learning" strategies, yet there are many other ways to learn – orally, kinesthetically, artistically, etc. While all students could benefit from a wider variety of teaching strategies, students at-risk may be especially alienated by a heavy emphasis on the traditional "book learning" strategies since the books schools use rarely reflect any of these students' experiences. Moreover, the conventional lecture style does not offer students intrinsically interesting ways of learning. Other learning strengths can include an interest and curiosity in oral and artistic expression, abilities to learn through the manipulation of appropriate materials, a capability for engrossment in intrinsically interesting tasks, and the ability to learn to write before attaining competence in decoding skills which are prerequisite to reading. In addition, students with varied learning styles can serve as enthusiastic and effective learning resources for other students through peer tutoring and cooperative learning approaches (Slavin 1983).

School-based administrators are also underutilized. They are often placed in "command" roles and asked to meet the directives and standard-operating-procedures of districts rather than to work creatively with parents, staff, and students. And, communities have considerable resources including youth organizations, senior citizens, businesses, and religious groups that should be viewed as major assets for the schools and the children of the community. The strengths of all of these participants can be viewed as a major set of resources for creating Accelerated Schools.

Accelerated Values

Underlying the accelerated principles and practices are a set of values, beliefs, and attitudes which are necessary to create the culture for accelerated school change. The following values, attitudes, and beliefs are clearly interrelated:

- *equity*: All students can learn and have an equal right to a high quality education.
- *participation*: Students participate in learning; teachers participate in decision-making; parents participate in school decision-making.
- *communication/community*: Students engage in more active and group learning. School staff and community work toward a shared purpose by meeting, talking, and learning from each others' experiences.
- *reflection*: Students engage in problem-solving exercises and more interpretive approaches to curricula. Teachers and other adults constantly scrutinize the world of the school and address challenges to school improvement.
- *experimentation*: Students are involved in discovery exercises. Teachers implement experimental programs as a result of communicating about and reflecting upon the school's problems.
- *trust*: Teachers, parents, administrators and students must believe in each other and focus on each other's strengths.
- *risk-taking*: All parties must be more entrepreneurial in their efforts. While some new programs may fail, the ones that succeed are the keys to lasting school improvement.

Many of the values described above stem from the work of John Dewey, who believed that a democratic education implies faith in the potential of both children and adults to understand, and to some extent, shape the world around them (Dewey 1988). Individuals begin to realize this potential, Dewey argues, when, as members of groups, they take active roles in *inquiring into shared problems* (Dewey 1984). This process of collaborative Inquiry serves as a model for the governance of an Accelerated School as well as for the curricular, instructional, and organizational practices.

GETTING FROM HERE TO THERE

Existing schools can be transformed structurally by moving decision-making to school sites, but they will not truly function as Accelerated Schools without building the capacity of the schools to establish a unity of purpose, to make responsible decisions, and to build on strengths. The Inquiry Process is a mechanism for moving the school toward accelerated practice along all three dimensions of the triangle (curriculum, instruction, and organization). Through the Inquiry Process, teachers, administrators, and parents identify and define educational challenges, look for alternative solutions, and implement and evaluate those solutions. The entire process can take up to a full school year because it entails a wide range of issues which touch upon all facets of the school – on culture as well as pedagogical practices. Before delving into schoolwide challenges using the Inquiry Process, there are four important steps a school must take to initiate the Accelerated Schools process.

Initiating the Accelerated Schools Process

Initiating the Accelerated Schools process can be accomplished in four steps. These four steps should take at least three weeks to accomplish – some of the steps will involve full-time attention, while others can be accomplished as part of the normal course of the school day. In the first step, the school *takes stock* of "where it is." The school community gathers quantitative and qualitative information on the history of the school; data on students, staff, and school facilities; information on the community and cultures of the parents; particular strengths of the school; data on attendance, disaggregated test scores, and other measures of student performance; and the major challenges faced by the school. The process of collecting, reporting, and discussing the baseline information will take several weeks of research, compilation, and discussion. This self-examination provides a useful record of the school's status at the start to compare later with progress. Some schools might even want to consider creating a time capsule out of the baseline information expressly for the purpose of regular comparison with present and baseline situations. It is important that the entire school community actively participates in gathering the baseline data so that participants will begin to develop a sense of ownership over the process.

The second step in initiating the Accelerated Schools Process is to *establish a vision* for the school that will be the focus of change. Again, the entire school community should engage in creating a vision – including teachers, principal, parents, central office administrators, the community, and students. It is crucial for all parties who will be involved in the planning, implementation, and/or evaluation of educational programs to be included in this process. The all inclusive nature of defining a vision results in ownership of a common goal and long-term commitment to achieving that goal. The process of discussing individual dreams for the school could also help foster student-adult, parent-child, and school personnel-parent bonding.

The school community will create the vision in a series of both small and large meetings, where the participants focus on imagining and describing a school that will work for students, staff, and community. In this step, the school community asks itself, "What knowledge, skills, and attributes do we want our students to have when they leave our school?" Alternatively, a school community members could ask themselves, "What kind of school would I want to send my child to?" or "What do we want our school to look like in five-six years?" We suggest five-six years, because it takes time to transform a school, although significant changes will occur during the first year. Out of this series of discussions, a vision for the future will emerge – a vision which will be the focus of Accelerated School implementation. If the school community prepares for the creation of a shared vision by discussing elements of their personal visions informally over a couple of weeks beforehand, this phase of the process can be carried out in a one or two-day meeting.

The third step involves the *comparison of the vision with the baseline information*. Clearly, there will be a large gap in many aspects between the vision and the existing situation. The school community must synthesize and compile all of the things that must be done in order to move from the present situation to the future vision. They may amass a very large number of changes that must be made, often 40-50 major alterations.

In the fourth step, the school community takes the list of what needs to be accomplished and *reduces it to three or four initial priorities* which will become the immediate focus of the school. An organization rarely can work effectively on more than three or four major priorities at a time. This exercise may generate a very animated set of discussions that gets to the heart of staff concerns. The dynamics of the discourse are themselves useful because they help the staff realize that they are responsible for change and for choosing those areas where they must begin. The agreement on priorities is followed by the *establishment of the first cadres* – the small groups that will work on these priorities – and assignment of staff to each group, usually through self-selection. The final activity is that of deciding how to construct the steering committee and its functions. At this point the school is ready to begin working on its priority areas adopting the full Accelerated School process. Before describing Inquiry at the cadre level, we will describe the Accelerated School governance structure necessary to support regular Inquiry.

Accelerated School Governance

The governance of an Accelerated School is built upon the three guiding principles: The *unity of purpose* (vision created above) gives the governance groups clear goals toward which to organize their work. The principle of *building on strengths* acknowledges that teachers, parents, students, and administrators have unique strengths which can complement and further build on each other in the transformation to an Accelerated School. The principle of *empowerment* places the responsibility for education back at the school site in the hands of all involved. Indeed, at the heart of the Accelerated School is the emphasis on site responsibility for the educational process and outcomes. This implies that there must be an appropriate decision-making structure built around the school's unity of purpose.

Described below are the school governance structures which should be in place in order to begin collaborative Inquiry at the cadre level. We have found that three levels of participation are necessary to encompass the range of issues that must be addressed in an a democratic, but productive way: cadres; a steering committee; and the school-as-a-whole.

Cadres are the small groups organized around the school's particular areas of challenge (determined in Step 4 above) where the school's present situation falls short of its vision. These areas could be: family involvement, mathematics, assessment, scheduling, or any other school challenge. Where the challenge is a continuing one, such as curricular assessment or family involvement, a continuing cadre is formed. In the case where the challenge is episodic, such as the planning of new facilities, an ad hoc cadre is formed for the duration of the task. In any case, the cadres analyze and solve problems using the Inquiry Process. They systematically define specific problems that the school faces and search for and implement solutions. Cadres are constituted by those who self-select to serve on them during the setting priorities stage above.

The *Steering Committee* consists of the principal and representative teachers, aides, other school staff, students and parents. Steering committee members can be elected, or they can be composed of representatives of the cadres with rotating membership over time to give all persons a chance to serve. The Steering Committee serves at least four purposes. First, it serves to ensure that cadres continually move in the direction of the school vision. Second, it serves as a clearinghouse of information so that cadres communicate and do not operate in isolation. Third, the steering committee ensures that cadres stay on track with the Inquiry Process. Finally, the steering committee monitors the progress of the cadres and helps develop a set of recommendations for consideration by the school-as-a-whole.

School as a Whole refers to the principal, teachers, teachers' aides, other instructional and non-instructional staff, and parent representatives as well as student representatives. The school as a whole is required to approve all major decisions on curriculum, instruction, and resource allocation that have implications for the entire school. The school as a whole must approve decisions before cadres begin implementation of experimental programs.

The Inquiry Process

As introduced above, cadres take on overall challenges identified by the school community, such as poor mathematics performance of students, and use the Inquiry Process to work toward a solutions to those challenges. Inquiry cadres identify the particular problem at the heart of the challenge area, brainstorm potential solutions, synthesize those solutions, pilot experimental programs, and evaluate those programs.

The Inquiry Process differs from the after-school and one-day staff development stints that school staff typically receive in three major ways. First, Inquiry provides an outlet for school staff to look into challenge areas of *their* choosing in an in-depth manner, rather than looking into district or state priorities in a surface manner. Second, Inquiry encourages the school community to produce knowledge as well as to transmit it – building on the many strengths at the school site. Third, Inquiry empowers those at the school site to make the changes they know are best for students (Polkinghorn, Bartels & Levin 1990). It is important to note that Inquiry will lead different schools in extremely different directions since Inquiry is the vehicle schools use to achieve their vision, which will be, by definition, unique to their school community.

The cadre will work through the Inquiry Process in five phases. Because the Inquiry Process necessitates reflection, working through the Inquiry Process can take anywhere from a week to a full school year depending on the challenge area. A challenge such as mathematics achievement is likely to take more time than one such as facilities usage. In any case, the benefits of spending this time seem to outweigh the cost of the time, in that schools end up choosing solutions that are carefully tailored to their particular challenge areas – solutions which move the school community closer to its vision. The five stages of the Inquiry Process are:

STAGE 1: FOCUS IN ON THE REAL PROBLEM In the first stage, the cadre must refine the broad challenge area so that they can understand the specific concerns surrounding the challenge. Cadres should translate broad concerns into specific hypotheses that seek to explain the broad concern. For example, if low family involvement were a broad concern, a specific hypothesis to explain the concern might be that the students' parents who were not involved were not actually biological parents – that is, they may be aunts, grandmothers, etc., who may have less time for or commitment to the students. Cadres should set out as many hypotheses as they can and then seek to test the hypotheses in order to focus more sharply on the particular problem at hand. As a result of the hypothesizing and exploring, each cadre should create a specific and organizing question which can guide the group's work throughout the Inquiry. If it turned out that the hypothesis about non-biological parents was not actually the problem, but the lack of parental involvement in the academic work of their children was, then the question might be, "How can we better involve students parents and/or guardians in the academic work of their children?" Taking the time to hone in on the real problem will ensure that all other cadre efforts in Stages 2-5 yield the maximum benefit.

STAGE 2: BRAINSTORM SOLUTIONS In stage two, the groups seek out possible solutions for addressing the specific concern identified in stage one by looking inwards at their own situation and outwards to the experiences and practices of others. This second stage is simply a brainstorming stage where any idea goes.

STAGE 3: SYNTHESIZE SOLUTIONS INTO AN EXPERIMENTAL PROGRAM In stage three, the cadres look critically at the solutions they brainstormed and decide which one(s) best address their organizing question and will most likely carry them toward their vision. The cadre synthesizes the possible solutions into a plan for an experimental program molded to the school's special needs.

STAGE 4: PILOT TEST PROGRAM In stage four, after an experimental program receives the support of the steering committee and school-as-a-whole, the school implements the program on a pilot basis.

STAGE 5: EVALUATE AND REASSESS In stage five, the school evaluates the pilot program to determine whether it addressed the organizing question effectively. At the end of this process, members of the school community choose either to continue working on this issue or to select another piece of the vision on which they wish to work.

Aids to adopting the Inquiry Process and Accelerated Governance Structure

Taking on the Inquiry Process and setting up the governance structures to support the process may represent new territory for school communities. School staff have neither been trained to function in this way, nor have they been expected to function this way in traditional schools. Although much of the capability needed to become an Accelerated School comes directly from practice or experimentation; school communities will become experts at the process as they work at it.

At this point, staff in our pilot schools have internalized the Inquiry Process governance so that it is a regular part of their professional lives. Three sets of activities have helped these schools take on this process which originally represented a radical departure from practice – time, group decision-making skills, and meeting standards. First, these schools worked creatively with their districts and even with the state to find *time*. Moreover, they worked to find time on a continuing basis, rather than a single chunk at the beginning or end of the year. Many Accelerated Schools have found significant amounts of time by combining related responsibilities and dissolving committees that were no longer needed. For example, the Accelerated School governance meetings have replaced some of the more conventional staff meetings rather than being held in addition to them. Other strategies include: creating early release days by elongating other days, buying substitute time, setting up creative and flexible scheduling, extending teacher contracts, staying after school periodically, and setting up special events days.

Secondly, the school staff have discovered that they functioned more productively as a group after improving their *group decision-making skills.* School staff have traditionally operated in isolation from each other and have not been allowed to make major educational decisions about curriculum, instruction or organization. Meetings in traditional schools tend to be highly structured and run in a routine and often authoritarian fashion. School staff rarely view meetings as having the potential to be productive and to accomplish major goals in behalf of the school. Accordingly, the school staff needed experience in working together with special attention to group process and participation, sharing of information, and working towards decisions. Indeed school communities that think about becoming Accelerated Schools often request to receive training in group decision-making. Another strategy for building school capacity to self-govern is for school governance groups to work with a facilitator or to collaborate with a third party. These individuals can provide objective advice and additional expertise.

Thirdly, the schools have realized their need to set up a new set of meeting standards. In an Accelerated School, the school governance groups meet and communicate with each other on a regular basis. Cadres meet on a weekly basis, the steering committee on a bi-weekly basis, and the school-as-a-whole on a quarterly basis or as needed. Meetings of all entities require a public display of agendas in advance of meetings and minutes of meetings within a reasonable time following the meeting. These meetings began to build a sense of comaraderie, ease of communication, and a source of motivation sparked by teams of people working together on a regular basis.

NEW ROLES FOR ADMINISTRATORS

Earlier in this chapter, we discussed the new roles of teachers and parents in the Accelerated School. Clearly, the administrators – both in the school and in the central office – will play different roles from those they have in more conventional school districts. In an Accelerated School, the principal must move from the role of compliance officer to that of a leader whose first priority is to be involved in the educational process. An Accelerated School principal is responsible for coordinating and facilitating the activities of the school community's decision-making as well as for obtaining the logistical support in the form of information, staff development, assessment, implementation, and instructional resources. A good principal in the context of the Accelerated School is one who is an active listener and participant, who can identify and cultivate talents among staff, who can keep the school focussed on its mission, who can work effectively with parents and community, who is dedicated to the students and their success, who can motivate the various actors, who can marshal the resources that are necessary, and who is "the keeper of the dream." In the last role, the principal is the person who must always remind participants of the "dream" especially during periods of temporary disappointments or setbacks.

Individual schools can certainly make significant strides toward their vision, but without the active support of the school district, individual schools will be unlikely to be able to operate in a truly accelerated fashion. School districts must play a greater service role for individual schools than they normally do if schools are to reach their ultimate visions. Instead of serving as regulators of schools with rules, mandates, and policies to ensure compliance of school activities with some centralized plan, administrators in central offices must provide support services to help Accelerated Schools achieve their visions. Central office staff must regularly work with those at the school site in a variety of ways. For example, central office staff can assist cadres and the steering committee in identifying challenges, obtaining information on alternatives, implementing pilot programs, obtaining staff development, and conducting evaluations. Central office staff can also work with schools to design the much needed alternative assessment tools. Central office personnel can also assist the schools in working with parents and helping families sponsor activities that support educational progress of their children in the home.

While inner city and poor rural schools definitely need considerable additional resources (Levin 1989), these schools can begin to make significant changes by shifting the use of existing resources. Central office administrators can also work with schools to devise ways of providing additional released time of staff for meetings, staff development, discussion, reflection, planning, and exploration of alternatives. Schools must be more creative with existing budgets and work hard to obtain additional funds through grants and donations from the community. Our pilot schools have been successful in re-arranging existing budgets, using various school district resources, obtaining small grants from foundations, enlisting the time of community members, and changing school organization to provide additional time and resources.

Moving from Accelerated Elementary Schools to Accelerated Middle Schools

Up to this point, we have concentrated on describing Accelerated Schools at the elementary level. While many features of Accelerated Middle Schools will be similar to those found in Accelerated Elementary Schools, the challenges and opportunities presented by adolescents will lead to Accelerated Middle Schools which are clearly different from Accelerated Elementary Schools. In the next chapter, we will discuss these challenges and opportunities through a review of early adolescent development and the reform proposals for the middle grades.

Chapter 3

WHY MIDDLE SCHOOLS?

In the 1970's, a review of research and programs for young adolescents declared that "young adolescence is the most overlooked age group among minors in America" (Lipsitz 1977). The situation has changed. Since the mid-1980s, educators have begun to pay more attention to early adolescents and the schools that serve them. Given the magnitude of the changes and the risks faced by students during this period, it is striking that attention has only recently been focused on this group and their needs. For, between the ages of 10 and 15, students experience profound changes physically, intellectually, and emotionally. While the opportunities for growth are substantial, the potential pitfalls are numerous. This is the age when many students first encounter drug use, teen pregnancy, and serious academic failure.

Thanks in large part to the influence of Lipsitz and her colleagues, we know and understand more about early adolescent development, knowledge which we can use in educating middle school students. For example, a composite portrait of early adolescent characteristics now forms a standard part of reform reports on middle grades education (e.g., Carnegie Council 1989; National Commission for Citizens in Education 1989; Massachusetts Advocacy Center & Center for Early Adolescence 1988; California State Department of Education 1987; Maryland Task Force on the Middle Learning Years 1989). We draw on these and other reports and on Lipsitz's (1977) work to highlight aspects of early adolescent development that hold implications for middle grades education.

In this chapter, we first provide a review of this research on adolescent development, paying attention to some of the extenuating circumstances faced by adolescents in at-risk situations. We also discuss some of the implications of adolescent development on adolescent behavior and middle grades education. We then turn to a review of the many reform proposals that have been put forth in response to the recent interest in adolescent development. Next, we present vignettes of three inner city school situations. We conclude the chapter by discussing the compatibility of the reform proposals and the Accelerated Schools process as vehicles for moving from the present schooling situation to a more productive and equitable one.

EARLY ADOLESCENT DEVELOPMENT

The number and magnitude of the changes that occur in youngsters between the ages of 10 and 15 are second only to the prenatal and early childhood periods (Dorman & Lipsitz 1981; Waber 1974). Commentators use various labels for the multiple dimensions on which young adolescents develop; however, the most frequent labels are:

- physical (or biological) development
- emotional (or psychological, temperamental, social) development.
- intellectual (or cognitive and/or moral) development

Diversity is the watchword in young adolescents' development. Not only do individuals grow at different rates, but any one individual grows to some extent unpredictably on any one of these dimensions. This irregular and at times rapid growth is normal, as are the conflicts associated with it. These conflicts stem from what Erikson (1968) termed the "normative crisis" that healthy youngsters seek psychologically to resolve in this period.

Physical Development in Early Adolescence

The early adolescent years include most major milestones of adolescent physical development. For example, girls' adolescent growth spurts begin just before age 10 and reach a peak velocity at close to age 12, on average. Girls typically first menstruate at age 13. Boys' growth spurts begin and reach a peak velocity about two years later than girls, but still within early adolescence. Similarly, boys experience their first ejaculation between ages 13 and 14, on average (Frisch 1974).

Secondary sexual characteristics also tend to appear during this period. These include breast development and the widening of hips in girls, deepening of voices and appearance of facial hair in boys, and the growth of underarm and pubic hair in both girls and boys (Dorman & Lipsitz 1981).

Other physical changes also occur. Bones, muscles, and other tissues grow, but not always at the same rate within individuals. Thus, young adolescents' limbs, noses, or ears may sometimes appear disproportional to the rest of their bodies. In addition, young adolescents may also lack coordination (California State Department of Education 1987).

Fluctuations in basal metabolism and hormonal balances are characteristic during this period. These cause individuals' energy and appetites to vary dramatically. If youngsters satisfy their hunger with improper foods, the addition of an unbalanced diet may exaggerate the mood swings and less than optimal physical fitness many youngsters experience during early adolescence (Maryland Task Force 1989; California State Department of Education 1987).

Each milestone of physical development can occur normally over a several year span in a group of youngsters. This normal variation, coupled with the typical gap between girls' and boys' development, combine to create a very large range of physical development during the early adolescent years. As Dorman and Lipsitz (1981) point out, a single class of normal eighth graders could manifest an eight- to ten-year span in physical development.

Emotional Development in Early Adolescence

The emotional characteristics of young adolescents depend in part on the physical and other changes they are undergoing. For example, their rapid and varied physical development tends to make adolescents concerned and self-conscious. Hormonal changes also bring on widely varying feelings and moods (Dorman & Lipsitz 1981).

Learning who they are and measuring themselves against others preoccupy youngsters during early adolescence. This concern with self plays itself out in many ways. These include young adolescents' generally weak self-esteem, alternating feelings of superiority and inferiority, and sensitivity to personal criticism (Maryland Task Force 1989).

Concern with self also produces the somehow complementary feelings of victimization or isolation as well as feelings of invincibility (Dorman & Lipsitz 1981). Young adolescents act out aggressively or daringly at times. Other times, they may seek to fashion themselves after selected peer or adult models, often media stars in our culture.

Despite the egocentrism typical of young adolescents, they are also intensely interested in social relations and they tend to become increasingly capable of intimate personal relationships (Carnegie Council 1989). They desire peer acceptance and are willing to ostracize those outside their peer group (California State Department of Education 1987). They desire adult approval, yet they also seek increasing independence (Maryland Task Force 1989). These conflicting desires sometimes confront young adolescents with painfully conflicting loyalties (California State Department of Education 1987).

Intellectual Development in Early Adolescence

Early adolescence contains major milestones in intellectual development as well as in physical and emotional development. Brain growth spurts again during this time, as it does periodically throughout childhood and adolescence (Brooks, Fusco & Grennon 1983). Throughout this period early adolescents tend to become increasingly capable and interested in relatively abstract and complex thought (Carnegie Council 1989). Moral issues also become of interest to adolescents during this period. They may begin to challenge issues of justice and equity with a level of sophistication that previously did not exist (Kohlberg 1984).

Young adolescents are described as intensely curious about many things. In particular, they are interested in learning about and understanding adult behavior. (Maryland Task Force 1989). More generally, young adolescents prefer learning through active rather than passive experiences, are eager to learn things that they consider useful, and enjoy using their skills to solve actual problems (California State Department of Education 1987).

ISSUES FOR YOUTH AT-RISK

As trying as adolescence is for all youngsters, it can be twice as hard for those students whose backgrounds and experiences are very different than those valued by schools. This mismatch can create a feeling of alienation and lead to school failure. When the schools fail middle class children, those children usually have the home and community resources to boost them back up. Unfortunately, when schools fail students in at-risk situations, they have more limited opportunities for support.

Poor and minority students are more likely than their middle class, white counterparts to have improper nutrition, inadequate health care, limited exposure to learning during early childhood, limited parental educational attainment, and limited opportunities to hear, speak, and write standard English. Grinding poverty, poor housing and frequent moves, single parent families, and neighborhoods full of violence, crime, and drugs are all too common as well. Therefore, the already difficult challenges posed by adolescent development are exacerbated for youth in at-risk situations. It is extremely important to note that while these students are predominantly from impoverished, immigrant, or minority backgrounds, the mere presence of these factors does not automatically spell school failure for these children. As Comer (1988) and others (Ianni 1989; Clark 1987) have pointed out, many poor, minority parents and communities have been successfully nurturing their children for success in school and later life.

However, the fact remains that too many adolescents go through this challenging developmental stage called adolescence facing difficult environmental conditions without much school support. Middle schools are still not designed with the needs of adolescents –let alone adolescents at-risk in mind. Despite the move from the junior high model to the middle school model, middle grades education still tends not to meet the needs of these students – class sizes remain large, instruction is conventional, and there is little opportunity for adult bonding. The result is that poor and minority adolescents tend to become the schools' low achievers. With these as foundations, dropping out, drug experimentation and abuse, and teen pregnancy become attractive alternatives and have an increased likelihood of occurring.

RAMIFICATIONS OF DEVELOPMENT ISSUES IN THE NEED TO REFORM

As a result of the many physical, emotional, and intellectual developmental changes occuring at the same time, adolescents may experience feelings and emotions they have never had to deal with before. Many adolescents say they feel increased self-consciousness, increased feelings of awkwardness, lowered self-esteem, feelings of alienation from adults (especially those in a position of control), concern about peer acceptance, and uncertainty about their role as an adult or a child (National Committee for Citizens in Education 1989).

On the more positive side, early adolescents want and need to learn about the world and what it has to offer. They also want and opportunities to take on responsibility. They need to have postive relationships with peers and to bond with adults who take them seriously. But most of all, early adolescent are intensely curious about themselves and the world around them.

What actually motivates adolescents varies greatly from student to student. While some adolescents are motivated to seek success through conventional instruction, most adolescents look elsewhere to achieve success – they may look for success in peer situations or in the "real world." Looking for success with peers or in the real world can lead to both positive and negative consequences. For example, adolescents may experiment with actions they consider adult-like (i.e. sex, drugs). Alternatively, adolescents may try to be more responsible and explore themselves and the world around them (i.e. interest in careers, higher education, travel, and interpersonal relationships).

Middle schools should treat these unique characterstics and needs that are particular to the early adolescent developmental stage as a strengths to build upon, rather than weaknesses to suppress. Interestingly, these characteristics and needs which accompany the early adolescent developmental stage set up a "ripe" environment for delivering some of the most motivational curriculum and instruction students could ever encounter in school. The combination of early adolescent curiosity, ability to think abstractly, interest in taking on responsibility, and enjoyment of fun activities provide schools with a wide variety of possibilities to hook adolescents' interest and motivate them to learn and achieve success.

As Brophy (1987) states, adapting tasks to students' interests, allowing them to take on responsibility, providing them with opportunities to interact with peers, inducing curiosity, suspense, and dissonance, and incorporating game-like features all can lead to student motivation to learn. Moreover, students will be more interested in learning when they believe they have a reasonable chance to succeed. When young adults – especially at-risk young adults – believe that taking responsibility for their actions will lead to certain outcomes, they are much more motivated to achieve those outcomes (Greene 1985).

Other strategies schools can use to bring all adolescents into the educational mainstream by better meeting their unique needs and strengths follow. To build on their sense of curiousity and desire to take responsibility, teachers can utilize exploratory teaching methods and give the students more responsibility through extended projects. To strengthen positive peer relations, teachers can create assignments that allow for cooperative learning and bonding between students. To develop students' self-esteem, schools should provide positive role models and encourage students to have consistent contact with community role models who students can identify with and who come from similar backgrounds (including community leaders and business people). Another way to develop student self-esteem is for teachers to create opportunities for the students to display their strengths and show that they are valued by adults around them (e.g. teachers and parents).

In summary, adolescents have very particular needs which must be included in the middle school education process. Though we have only provided a general overview of issues to consider, we will discuss these issues as they relate to an Accelerated Middle School's curriculum, instruction, and organization in the following chapter. A more hands-on, implementation-oriented description of these issues and strategies will be included in the upcoming resource guide.

REVIEW OF PROPOSALS FOR MIDDLE GRADES REFORM

As a natural outgrowth of the new interest in adolescent development and needs, a large number of reform proposals have been put forth. The roster of those who have contributed to the recent discussion of middle grades reform is long and diverse. The federal government, for one, funded a national research and development center on middle schools from 1985 to 1990 called the Center for Research on Elementary and Middle Schools at the Johns Hopkins University, and has sponsored other research as well. By 1988, twenty states had formed task forces or study groups on early adolescence (Children's Defense Fund 1988). Between 1985 and 1989, more than a dozen associations, commissions, philanthropic foundations, state departments of education, and other groups issued reports recommending how schools and youth-serving institutions could be more responsive to early adolescents, especially those considered at risk of school failure (Austin & Meister 1990).

Although these reports vary in numerous respects, they share a set of common assumptions and recommend a number of similar desirable practices. Below, we have summarized the dominant themes from the following sources:

California State Department of Education 1987
Carnegie Council 1989
Carnegie Foundation 1988
Committee on Economic Development 1987
Council of Chief State School Officers 1987
Edna McConnell Clark Foundation 1989
Education Commission of the States 1988
Institute for Educational Leadership 1987
MDC 1988
Maryland Task Force 1989
Massachusetts Advocacy Center 1988
National Association of Secondary School Principals 1985
National Association of State Boards of Education 1989
National Foundation for the Improvement of Education 1986
National Governors Association 1987-88

In summary, the reports suggest the following:

Need to restructure education. Most of the reform reports cite the need for systemic change at the middle level of schooling. While indicating that the need to reform is urgent, the reports attribute the urgency to one of two pressures. On the one side are those impatient with the mismatch between conventional schooling practices and the developmental needs of early adolescents in general. Others are alarmed by the potential economic and social costs of failing to educate low achieving youngsters adequately.

The reports stress that both the vision and practices for schooling must change. Specifically, these reports cite the need to educate all children, especially those who have disconnected themselves from school in one way or another. The reports also indicate the need for fundamental reform through calls for renewed leadership, an aroused citizenry, participation by various segments of the society, and legislative action.

Developmentally appropriate approaches. The reports universally call for various changes in curriculum and instruction in the middle grades. Although this category contains nine separate recommendations from the reports, they tend to be interrelated.

- Core curriculum A number of reports advocate that middle schools adopt a core curriculum, which typically means a common set of learnings that all middle grades youngsters should acquire. Several reports list explicit subject areas and/or skills that a core should include, such as language arts (including grammar and literature), mathematics, science, social studies (including history), fine arts, and health. Some include foreign language and physical education. The core curriculum can be interpreted as primary subject areas and educational goals.
- High expectations A core curriculum is usually understood to be "academically-oriented," implying high expectations for student performance. These higher standards open the question of how lower-achieving students are to perform in a core that is meant to challenge higher-achievers. But, at least two reports assert that high expectations are appropriate for youngsters at-risk, too (Edna McConnell Clark 1989; Maryland Task Force 1989). While the reports posit that all middle grades students can be expected to progress on curricula that are challenging to them, some reports specifically call for extra time, special instruction, or other support for low achieving students.
- Thinking skills Some reports would add critical or higher-order thinking to the curriculum for the middle grades. As the Carnegie Council (1989) report points out, critical thinking is not yet well defined. However, it can be contrasted with mere factual recall. Critical thinking is sometimes considered

to include problem-solving, metacognition (thinking about the process of thinking), and logic.

- Interdisciplinary study Some reports argue that interdisciplinary study is especially suited to early adolescents' development. They call specifically for thematic learning that blends various disciplines into single units or that approaches a single topic through separate disciplines. Others also recommend abandoning the goal of "covering" multiple curricular areas; they suggest a more in depth coverage instead.
- Exploratory subjects Elective and exploratory subjects are also proposed for the restructured middle school. Like interdisciplinary study, exploratory subjects are thought to capitalize on early adolescents' curiosity while letting them experience many and various new activities. Unlike interdisciplinary study, however, the use of elective or exploratory courses already has a firm foothold in existing middle schools (Becker 1989). Several reports recommend somewhat revised course offerings, however, especially in technology and community service.
- Personalized education The reports emphasize the need to personalize various aspects of middle grade schools. A personalized curriculum would draw on problems and situations that comport with students' experience and interests. Some reports stress the need to incorporate students' ethnicity and culture in curricular and co-curricular offerings. This holds especially for students whose ethnicity and culture may be underrepresented in the conventional curriculum.

Personal relationships between students and adults are widely envisioned for restructured middle schools. The reports recommend positive personal attention to students, extended contact between students and teachers, as well as a pleasant climate for young adolescents and adults. The means proposed for accomplishing this vary. Numerous reports suggest reducing the size of school units through the creation of "families," teams, or schools-within-schools. These organization strategies are particularly urged for students at-risk. Other reports suggest assigning adult advisors to individuals and groups of students, or less commonly, assigning teachers to a group of students for more than one year.

- Grouping students Some reports advise eliminating homogeneous grouping, such as tracking, because it keeps "lower track" students away from high expectations, mainstream curricula, and mainstream students. Suggested alternatives include flexible grouping, cooperative learning, and cross-age tutoring.
- Active learning techniques On the basis of early adolescents' need for physical activity and concrete experience, some reports suggest that middle grades instruction emphasize active learning. Active learning has multiple meanings, all of which imply giving students a greater role in their own learning. Examples range over opportunities to learn by discovery, use of projects and other hands-on activities, various cooperative learning strategies, and peer tutoring. Cooperative learning and cross-age tutoring are particularly recommended as possible alternatives to tracking in the middle grades.
- Flexible scheduling Several reports recommend varying time blocks during the school day. A flexible schedule is thought to facilitate other desired reforms such as interdisciplinary study, active learning, and personalized education. Flexible scheduling could also include longer school days, school weeks, and school years.

Ongoing evaluation. Ongoing evaluation of student progress and school programs is recommended in various reports. Several discuss the need for new methods to assess student achievement. Armed with better assessment tools to show how they are teaching, teachers could become more motivated to teach the new curriculum and to provide students and parents with better information about student achievement.

The use of diverse measures is suggested to evaluate program effectiveness and to guide continuing efforts at school improvement. This is strongly recommended for programs addressing the needs of youngsters at-risk. Holding schools accountable for evaluation results is also mentioned.

School-based management. To respond most effectively to the needs of early adolescents, various reports recommend that teachers, principals, other site personnel, and community representatives gain the power to make and implement school-wide decisions. Similarly, according to some reports, teachers should have the power to make decisions about their own instructional programs.

Partnerships with parents and community Most reports see the role of restructured middle schools expanding beyond the relationships of the teachers and students in classrooms. These reports recommend that schools join with others – with parents, community groups, governmental agencies, business, and institutions of higher education – to improve the middle school experience for students.

The need for collaboration is intensified where students caught in at-risk situations are concerned. Ideally, parents will have a reciprocal relationship with schools, in which they participate more actively at home and at school to support the schooling enterprise. In return, the school will take the initiative to keep parents informed, include parents in making decisions about their children and school programs, and provide skill training or other educational support for parents.

Governmental and community agencies should enter partnerships with schools to provide necessary health and social services to youngsters and perhaps to family members, according to these reports. The school should be prepared to provide some counseling and health care to all early adolescents. For youngsters with limited access to healthcare, schools may need to provide more basic and sustained care, either delivering needed services directly or brokering other agencies' services. Several reports suggest a case management approach for schools' participation in brokering these services.

The reports also suggest that government and community agencies consider other supportive roles that they can play. Examples include participation in the exploratory curriculum, coordination for the provision of after-school activities, enhancement of educational opportunities within the community, and development of school resources.

Adequate staff, facilities,and resources. Almost all reports firmly recommend that middle grades personnel be appropriately qualified upon hiring and appropriately developed throughout their service. These recommendations stem from the observation that middle grades staff currently lack specific training for working with early adolescents. A related perception is that middle grades teachers in particular are misplaced, unhappy elementary or high school teachers who consequently perform ineptly.

Recommendations in this area concern teacher preparation, certification requirements, and staff development. The need for pre-service courses and ongoing in-service on early adolescent development and on vulnerable youngsters is underscored in reports that deal with youth at-risk. Finally, these same reports also stress the need for equitable funding and suitable facilities.

THE CHALLENGE OF URBAN MIDDLE SCHOOLS TODAY

The recommendations of the reform proposals reviewed above certainly appear to promise improvements for middle school education. Before designing an improved or Accelerated Middle School, however, one must understand the school situations presently facing many poor and minority middle school students. The middle schools attended by these students tend to be quite different than the exemplary middle schools depicted by the reform reports. These young adults tend to go to large, urban schools. Overcrowded classes make it hard to offer these students any type of personalized instruction. Worse yet, the public pressures to raise test scores tend to encourage "teaching to the tests". Finally, students at-risk tend to have limited access to effective support at home just as they do in school.

To expand on our knowledge about urban middle schools, we visited three such schools to see how they are organized, what they are teaching, and how they are teaching it. The following vignettes point to the readily apparent contrast between the reality of middle school life — low expectations, policies which selectively "forget" children, and the use of rote instruction—and the rhetoric of reform — high hopes, heterogeneous grouping, and experiential learning. While the third vignette (below) is a particularly extreme example of a "bad" inner city middle school, it is important in that it illustrates the tone of extremes in middle schools serving predominantly students at-risk today. Whether the extreme is rampant drug trafficking, no working equipment, outdated textbooks, or totally conventional instruction, the extremes contribute to the low self esteem and disengagement of adolescents - and their teachers and principals - in urban middle schools today.

An American Political Process Class

It's sixth period on election day. The white teacher stands in front of her predominantly black class. "Open your books to Chapter 10, page 195," she projects; "we're doing the political party system today...Okay, who wants to read first?" Students in the front rows immediately raise their hands in hopes of reading aloud; students in the back take the cue to put their heads down and sleep to the drone of civics being read aloud; students in the middle begin to write notes and giggle quietly.

The teacher calls on a student who squares her shoulders and begins to read aloud. She has read two paragraphs when the teacher asks, "Why do we have political parties?" No hands. "Why are there Democrats and Republicans?" she rephrases. Again, no hands. Finally, a girl on the front row raises her hand and replies timidly, "...because some people are 'po' and some are rich." "PO?" the teacher mocks. "'Poor'" is the word." The teacher then calls on another student to read. The teacher and class miss the opportunity for a rich discussion of the political party system in our country. And it's election day.

Students continue to read two paragraphs each until the teacher wraps up the lesson by handing out a worksheet and asking students to copy some questions from the blackboard. None of the questions require much deep thought or creativity. They are all simple recall questions stemming directly from Chapter 10, pages 195-211.

The bell rings. Students in the front begin packing up; students in the middle of the class have already packed up and are ready to leave; and students in the back slowly wake up and slowly make their way – without books, paper, or pencils – to seventh period.

A Pre-Algebra Class

The principal recommended that we visit her school's new, untracked pre-algebra class. "The entire staff is totally behind heterogeneous grouping and high expectations for all," she said. "All of our students are now being placed in pre-algebra by the eighth grade," she continued. We enter the classroom after the bell has rung along with several tardy students. The teacher, who is sitting at his desk grading papers in the front of the room, directs the students to get started on their warm-up exercise on the board. The warm-up question on the blackboard reads, "(-74) + (+43) =?"

Some students finish the problem quickly and begin working on homework from another class. Other students start the problem with determination, but give up with frustration. Finally, some students do not even attempt to solve the problem; they either stare into space or chat with a neighbor. Ten long minutes go by before the teacher stands up to review the warm-up problem. He lectures without calling on a single student. The teacher then directs the students to some classwork on a second blackboard and a worksheet on the back cabinet. Instruction is abstract and non-stimulating, and student engagement is very scattered.

After class, we talk with the teacher about the new policy of heterogeneous grouping and pre-algebra for all. The teacher observes that some students are going to pass and some are not. "Mathematics, especially algebra, takes a lot of hard work, and some of these students are just not willing to put the time in," he states.

An English Class

The English teacher recalls the day he had to shorten his lesson on gerunds to be heard above the machine gun fire outside. That was the day he requested a transfer to another school. Fellow teachers describe the school as "out of control" and the kids as "extremely unfocused." The school has the "worst" kids, all of whom perform "below average," comments one teacher. Moreover, the neighborhood is in the middle of the city's worst drug trafficking area.

The English teacher notes that he is one of the few teachers who still attempt to teach lessons above the high noise level. "Others have resigned themselves to the constant cycle of worksheet after worksheet," he laments. Today, many students in the English class are busily and happily disengaged. They are passing notes, gossiping, and dancing. A beeper goes off. A student reaches in his pocket, turns off the beeping sound, and dashes out of the room. Others lean on the window sills, looking out and talking. A very young man pulls up in a red Mercedes sports car. Those leaning against the windows dart out the nearest door and stand around the car with awe and respect. Despite efforts at creating alternative positive role models, the teacher of this class has concluded that he and his fellow teachers find it is too difficult to compete with the idolized drug dealers.

ARE THE CURRENT REFORMS AND ACCELERATED SCHOOLING COMPATIBLE?

In order to move forward to the Accelerated Middle School, we must pause to reflect on the compatibility of the reform reports and the Accelerated Schools process as vehicles for moving from the present school situations, accentuated by the vignettes above, to more productive and equitable middle schools.

Despite the recent efforts of the reform reports, schools generally remain conventional and uninspired. Most schools' efforts at implementing innovative practices occur in a piecemeal fashion. Staffs put great energy into lots of different one-day staff development packages without a broader change vision for the school as a whole, let alone for the district or state. The result is that while principals and teachers can speak out about "high expectations," "hands on learning," "interdisciplinary units," and "heterogeneous grouping," their schools and classrooms do not have the tools or unity of purpose to bring these reform concepts to life.

Principals, teachers, and students are not individually at fault; they are part of a larger system which is full of mandates, regulations, and tradition. Education reform calls for high expectations and more relevant content, yet state departments of education and district offices demand high performance on "grill and drill" standardized tests. The reform reports call for more individualized and hands-on learning, yet teachers are expected to create these learning circumstances in overcrowded classrooms, which are interrupted for a variety of remedial pull-out programs. The reform reports call for interdisciplinary units, yet teachers are too busy with hall duty or lunchroom duty to meet and reflect with their peers on how an interdisciplinary unit might look.

The problem is that the reform reports call for a lot of good ideas without offering either a unified vision or vehicle for change. The reports offer a patchwork of good ideas, rather than a unified and systematic plan for school-wide improvement. Of course, no serious effort to change schools is small; any one of the changes that the reform movement contemplates for middle schools will require prodigious amounts of hard work, good will, and persistence. Yet, the reform reports' recommendations represent somewhat random substitutions of certain discrete practices for others. Although the report recommendations relate individually to curriculum, instruction, and organization, none addresses how to bind them together in a dynamic process for change. The reports leave unexplored how middle schools should discover which changes to make and how to make the changes they discover.

Accelerated schooling provides the ingredient that the reform reports lack: a unified vision of change for the entire school and a concrete process for achieving it. Changed practice in curriculum, instruction, and organization will stem from this vision. The Accelerated Schools Project knits many of the reform ideas into a unified plan for systemic change. Accelerated schools select specific practices because the practices are compatible with the guiding principles and values of acceleration, and because they arise from careful inquiry into a school's particular needs. By creating a vision, by empowering all staff to make decisions that relate directly to the attainment of the vision, by taking responsibility for the results of those decisions, and by utilizing strengths within the parents, community, school, and students, Accelerated Schools envision and implement change.

In the next chapter, we will describe images of Accelerated Middle Schools. The Accelerated Middle School design builds on the knowledge base on early adolescent development, many of the ideas and practices of the reform reports, our experience with Accelerated Elementary Schools, and visits to middle schools across the country. Finally, the Accelerated Middle School offers a unified vision and a vehicle for change.

Chapter 4

IMAGES OF ACCELERATED MIDDLE SCHOOLS

What will an Accelerated Middle School look like? Certainly, Accelerated Middle Schools will share features of Accelerated Elementary Schools, such as high expectations for *all* students and the collaborative Inquiry Process. They will also include many practices recommended in the recent reform reports. But Accelerated Middle Schools will be more than a collection of practices, from whatever source. Becoming an Accelerated Middle School will clearly require a change in vision. As Lipsitz (1984) states:

> Extracting school practices from an entire school culture and replicating them elsewhere may make a bad school mediocre. To become a good middle-grade school requires a change in vision about the possibilities of educating young adolescents.

The vision of any Accelerated School will by shaped by the principles and values of acceleration. Those principles – unity of purpose, empowerment and responsibility, and building on strengths – apply equally at the middle grades. The values – participation, communication/community, reflection, experimentation, equity, trust and risk-taking – also apply. The principles and values shape any school's inquiry into the three dimensions of schooling – curriculum, instruction, and organization. However, the specific curricular, instructional, and organizational issues vary from the elementary to the middle level.

The first part of this chapter describes the curriculum, instruction, and organization that we would hope to see in Accelerated Middle Schools. To aid our discussion, we frame some of our comments around contrasts between conventional and accelerated practices. We then discuss how the Accelerated Schools Model would integrate these practices into unified school change. The final section of the chapter presents a fictional account of a day in an Accelerated Middle School to illustrate how the practices we describe might come to life.

ACCELERATED MIDDLE SCHOOLS

If mandated from above, the curriculum, instruction, and organization of a school can be neutral and uninspiring to principals, teachers, students, and parents. NASSP (1985) urges every school to reflect and establish a discourse on its philosophy and express it in the form of a mission statement. The actual process of creating a mission statement (vision) is crucial to a school's transformation to acceleration, in that the collective deliberation by a school community in devising a vision serves to guide their work in making the curricular, instructional, and organizational decisions using the Inquiry Process.

The vision and goals of acceleration give a school a unified purpose around which to structure its transformation to acceleration. For example, the overall goal of the Accelerated Elementary School project is to enable all students to take advantage of mainstream secondary instruction by effectively closing the achievement gap in elementary school. This goal has helped elementary schools organize and unify their curricular, instructional, and organizational change efforts.

The overall goal of the Accelerated Middle School project is to prepare *all* students to take advantage of the full range of high school and post-secondary education options. For example, all middle school students should master algebra so that they can move on to geometry and other "college track" courses in high school. We must not close any doors on these early adolescents; rather, we must work to equip all middle school students with the academic, social, and emotional skills and qualities they need to pursue any and all career options they may desire. This goal of educational equity should help guide middle schools in their creation of a vision statement and move toward acceleration.

Once a school has collectively devised a vision and picked priority areas for cadre Inquiry, it is ready to work on specific characteristics of the curricular, instructional, and organizational aspects of the school. We described characteristics of conventional classrooms and schools through vignettes in Chapter 3. Even if the characteristics of conventional schools we cited are a bit exaggerated, they are familiar as standard practice in many schools – especially where poor and minority youngsters are concentrated. The principles and values of accelerated education differ from those of conventional schools and should lead to different conditions, practices and outcomes.

In the following sections, we highlight some of these contrasts between conventional and accelerated education to clarify the picture of accelerated practice. Although we list accelerated practices as discrete items, we do so only for descriptive purposes. These practices should not be considered as add-ons or self-contained programs that may be treated separately or episodically. They are all parts of a coherent whole. Also, we do not intend for schools to "ban" all of the practices listed in the conventional columns. Lectures or even textbooks are appropriate at times and should not be totally dropped. On the other hand, we believe some of the conventional practices, such as tracking or remedial coursework should be totally replaced by the practices in the accelerated columns. The point is to accelerate student learning by using the curricular, instructional, and organizational strategies that will best motivate these complex young adults to learn. We begin by describing the curricular characteristics of an Accelerated Middle School.

CURRICULUM

Curriculum denotes the content and concepts that students are to learn. Table 1 lists characteristic curricular practices of Accelerated Schools and some contrasting practices in conventional schools.

Table 1: Curricular Practices

Conventional Curriculum	Accelerated Curriculum
Remediation in basic skills	Enriched approach
Stress on factual knowledge	Critical thinking Social skills
Abstract concepts	current, real world situations, personal experience and community resources; application of concepts to concrete problem-solving issues
Disciplinary focus	Interdisciplinary approach Language across the curriculum
Remedial track courses	Common curricular objectives
Core subjects only	Full range of elective course-work, including the arts, career information, and physical education
"Traditional" content coverage	Equitable content coverage
Limited access to extra-curricular activities	Universal access to extra-curricular activities

Some observers will read the list of accelerated curricular practices and see them as a prescription for the education of gifted and talented youth. This is our hope. We believe that all students can grow toward the high expectations inherent in the accelerated approach. Also, these practices are not meant to become discrete curricular add-ons. The accelerated practices should run throughout all curricular areas.

In contrast, the examples of conventional practice demonstrate how middle schools often constrain their expectations for students at-risk . Leaving behind restrictive remedial approaches that stress decoding and memorization, accelerated practices are designed to nurture students' talents and help them discover the joy of academic and social efficacy, while also learning important skills. Described below are fuller descriptions of the accelerated curricular practices listed above.

Enriched approach Enrichment does not mean extra or optional assignments when regular work is finished, as it sometimes does in conventional schools. An enriched approach means restoring meaning and context to what is taught and how it is taught. The accelerated approach to enrichment seeks to make learning interesting and meaningful.

Accelerated Schools can enrich the curriculum by:

- making content relevant
- increasing complexity through relating parts to wholes and making connections among ideas and courses
- offering opportunities to practice multiple skills in conceptually-unified tasks
- developing multiple intelligences through the use of various learning modes

A specific example in language may illustrate some of these strategies. Students in an Accelerated School may read authentic literature and learn story grammar to understand it. They may write, edit, read aloud, and dramatize their own creations. They may produce their own books. They will also critique their own, each other's, and established authors' work (Barton 1988).

Critical thinking Teaching students to think critically runs *throughout* the Accelerated Middle School curriculum. Critical thinking skills should be emphasized in every course and lesson, rather than be relegated to any one lesson or course. Rather than teaching only facts and mechanics, the "what" and "how," the curriculum will also emphasize the underlying reasoning, the "why". To analyze, synthesize, estimate and guess intelligently, draw conclusions from data, generalize, solve problems, and strategically monitor one's own intellectual processes are critical skills for everyone. As we discussed in our description of early adolescent intellectual development in Chapter 3, early adolescents are ripe for work involving critical thinking skills.

Social skills Given that social relationships are of central importance to early adolescents, social skills should be an explicit part of the accelerated curriculum. An Accelerated Middle School should make learning about how people relate and solve problems both a field of study and an integral part of school life for students, staff, and parents. Schools can integrate social skills into the core curriculum in many creative ways – social studies provides a perfect setting for involving students actively in the way humans have solved problems for centuries.

As far as solving the problems between those at the school site and in the home, Comer (1988; 1980) and Larson (1989) have developed some approaches. Larson (1989), for example, has created materials that teach coping skills to "troublesome" seventh graders. Mental health workers in Comer's project have trained parents and professional staff how to relate to each other and how to recognize and handle students' social problems. Allowing students to participate in their own conflict resolution is another example of giving students a chance to take on a greater responsibility in determining their school success.

Current, real world situations and personal and community experiences; application of concepts to problem-solving issues Accelerated instruction looks beyond textbooks to authentic literature, source documents, magazines, reference books, and personal and current community events. Unlike most textbooks, these materials and real world experiences offer greater complexity and detail, intrinsic value, contrasting viewpoints, interesting and relevant content, and sophisticated data sources which advanced study and requires. Also, because of the complexity, contrasting viewpoints, etc, students will naturally engage in more problem-solving activities. An example of bringing the community into the classroom could involve making the community's current events a regular part of the content students study. In addition to studying the real world inside of the classroom, students also need to get out into the community. For example, a civics class could occur through a series of visits to a courthouse. Students could learn what goes on inside the courthouse and how that can have an impact on their lives.

Interdisciplinary approach Interdisciplinary study is an exciting method of examining topics and issues from the perspective of more than one discipline. Often associated with teachers' cooperative planning, interdisciplinary study allows teachers to address objectives in various areas simultaneously and allows students to learn in a more connected, meaningful context. MacIver (1990) found that interdisciplinary instruction was indeed more effective than subject-oriented study due to the integration and coordination across subjects. Although interdisciplinary teaching requires time and training for those unfamiliar with it, when it is implemented with adequate institutional support, interdisciplinary study can also stimulate site-based professional development and increase the staff's responsiveness to individual student needs. MacIver (1990) also found that teachers in interdisciplinary teams noted they received more social support and students felt like they identified with their teams.

For example, an interdisciplinary unit on planning a society can address objectives in social studies, mathematics, language arts, social skills, drama, career education, community service and industrial arts. This unit might have students begin by studying three different societies before they design their own. They could study an ancient society through books, tapes, and artifacts; they could then interview a grandparent or older community member about their societies and how they have changed over time. Finally they could study their present society through the media. As a result of these research efforts, students would design their own society. They could participate in a computer simulation of decision making in that society; practice the skills involved in planning, measurement, and group process through cooperatively designing a city for the society. Students could work with architects, contractors, real estate brokers, housing authorities, and operators of small businesses in the community to learn the requirements for residential and commercial space and construction on a first hand basis. The unit could culminate with students building a model of their contemporary city. Middle school students could prepare and conduct 'guided tours' of their city for their parents or for elementary school students. They could learn, compose, and present poems, songs, dances, or dramatic scenes representative of their society.

Teachers who have not taught in an interdisciplinary manner may be reluctant to try due either to the anticipated discomfort of teaching unfamiliar subject matter or the fear of displacing the subject matter they know and love. Mac Iver & Epstein (1989) have speculated on administrative and organizational factors that may also deter schools from fully implementing interdiscisplinary study. These can be overcome by structuring time for staff development and common time for teachers to meet to plan the thematic units based on their strengths.

Language across the curriculum Ideally, the Accelerated Middle School curriculum should appear coherent to students. Language in particular – reading, writing, listening, and speaking – should be integrated into all curricular areas. For example science and mathematics courses should stress correct usage, responses in complete sentences, and a full range of assessment techniques, including essays. Integrating language across the curriculum presents an opportunity for teachers to coordinate curricular planning and to increase their collective knowledge about individual students.

Common curricular objectives We support common curricular objectives for all students. This means that all students in Accelerated Schools will develop a common core of expectations, knowledge, and experiences beyond which students can make diverse choices. The rationale for this is 1) to guarantee *all* students equal access to more advanced study, 2) to equip them with important tools for success in adult life, and 3) to promote community-building throughout the school. Common curricular objectives need not be limited to language arts, mathematics, science, and social studies. They can also be communicated through ecology, human relations and other non-traditional courses that incorporate elements of the basics into thematic areas that might stimulate early adolescents' interest and engagement.

We maintain that students can arrive at common understandings and can acquire similar skills through diverse means. For example, to learn about checks and balances in government, students studying an interdisciplinary unit on the health professions might study AIDS and the federal process for approving the drug, AZT, for distribution. Students studying the civil rights movement could learn the same concepts through different content.

Like many advocates of common curricular objectives, we oppose tracking or grouping students by ability between classes. Our objection is that tracking effectively relegates groups of students to permanent under-education and denies them the chance to move back into the educational mainstream. Accelerated Schools must respond to those students who need different vehicles or different amounts of time to learn. Those students in this case are students who experience an extreme mismatch between the skills they bring to school and what the school offers and expects. The vehicles we suggest as alternatives to tracking are described in the following section on instructional strategies, which include cooperative learning and peer tutoring. Also, by incorporating more interesting and relevant curricula, we expect to motivate more students and reduce the need for tracking. It is important to note that the alternatives to tracking we suggest do not include pull-out or remediation. Our concern is that all are ensured equal access to equal learning opportunities.

Exploratory courses Exploratory courses in Accelerated Schools should not be add-ons to the curriculum. Rather they should relate to and build upon the common curricular objectives that play an integral role in the education of all students. Middle grades youngsters can all benefit from satisfying their curiosity in exploratory courses that introduce them to foreign languages, career information, and/or other subjects, such as technology, arts, communication, and humanities. These exploratory areas do not need to occur in isolation. The example above of building a society in the description of the interdisciplinary approach would certainly incorporate many of these exploratory objectives. In order to expose students to a wide variety of exploratory subjects, schools may consider creating a large variety of mini-courses for exploration.

Another area middle school students are anxious to explore is themselves. Counseling and/or peer advisory sessions can serve as an outlet for this exploration. Group discussions can give students the chance to discuss issues they feel are important. All students should have the opportunity to participate in exploratory courses; no students should forego participating because they are catching up on the basics or because they supposedly lack the background to participate.

Arts and physical/health education Accelerated Middle Schools should make the most of music, the arts, and physical expression as subjects of study and participation, and as part of the study of other fields. Adolescents find the arts intrinsically interesting and need gross motor movement. For some students, the arts may provide a means for achieving the school success that was eluding them, and may encourage their participation and success in other areas.

Equitable content coverage The curriculum in conventional schools is still very limited in regards to covering women, the poor, and minorities. In history and science, students learn predominantly about white man's conquests and discoveries. In literature, students primarily read stories of the middle and upper classes. And in mathematics, students must solve middle class, male-oriented word problems.

Curriculum should be representive of the myriad of people and cultures in our society. Incorporating the diverse cultures and backgrounds of the wide variety of students in schools today is yet another strength we can all build upon. Moreover, introducing students to different ways of thinking will help them to learn that their own culture is not intrinsically superior, just as other cultures are not necessarily inferior (Organization of Economic Cooperation and Development 1989).

Multicultural and sex equitable materials should be infused across the entire curriculum. Simply adding on a information about Blacks during Black History Month or Hispanics during Cinco de Mayo is insufficient and contradictory to the aim of providing more equitable content coverage across the board. Each curricular area should provide substantially more coverage of women, minorities, and different socio-economic groups. The thematic/interdisciplinary approach could aid schools in making their curriculum and instruction more equitable. For example, students could study a unit on the role of women in developing countries.

Extra-curricular activities Gottfredson and his colleagues (Gottfredson, Gottfredson, & Cook 1983) have shown that students' feeling of belonging in school can positively affect their school performance and reduce dropping out. Participation in extra-curricular activities contribute to this end. For this reason, conventional schools' practice of denying students access to extra-curricular activities based on low grades actually is counterproductive. Extra-curricular activities may be the "hook" a student needs to stay in school. Moreover, when extra-curricular activities reinforce or extend the curriculum, they give students the chance both to belong to school and to receive the extra help or supplementary experience not otherwise available to them. Examples of possible extra-curricular activities include music, dance, community service, computers, media arts, sports, and any others that are important to a particular school community.

INSTRUCTION

People tend to learn in a variety of ways. For example, some people learn best by seeing things (visual); others learn best by handling objects (tactile); others, by hearing things (auditory). As a further example, some students will enjoy learning in groups, while others may prefer to interact with adults. The variety of learning styles students bring with them to school are strengths which the school should seek to identify and build upon. Specifically, schools must respond to these differences with a variety of instructional styles. This does not mean that the traditional lecture style is an ineffective teaching method; there are certainly times when a lecture is the most efficient way of delivering a large body of information. However, the effectiveness of lecture style teaching wanes when it is the only strategy employed; moreover, it is not always the best approach for all students.

Ideally there should be a balance between the types of instructional strategies in order to meet the diverse needs of all students. There are many instructional approaches which have been found to be effective in a number of settings with diverse populations when used alone and/or in combination. Indeed, it is exactly that combination of strategies chosen and delivered with attention to a school's unity of purpose, that we believe will lead to improved school performance. Slavin (1987) has shown that truly effective, high quality instruction works for all students, not just selected groups.

Table 2 shows instructional practices which have been shown to accelerate student learning and contrasting conventional practices. Because curriculum and instruction are so related, we have already touched on some of these practices.

Table 2: Instructional Practices

Conventional Instruction	Accelerated Instruction
Rote learning and drill	Active and Discovery learning
Textbooks	Literature Primary sources
Worksheets and workbooks	Personal, community, and real-world experience
Lecture-style teaching	Hands-on activities Projects Full range of expressive modes Educational technology
Teacher-centered classrooms	Cooperative learning Peer and cross-age tutoring Student responsibility
Homogeneous grouping	Heterogeneous grouping
Reliance on standardized tests and external assessment	Increased reliance on alternative assessment and self-assessment

The practices outlined above represent not only more ways to teach, but they also constitute a different order of teaching. Linked to an accelerated curriculum, accelerated instruction empowers teachers and students actively to create and to evaluate knowledge instead of passively receiving it. Just as the curricular practices were to run throughout the curriculum, the instructional practices should run throughout the school experience. Below are fuller descriptions of the accelerated instructional practices listed above.

Active and Discovery learning Discovery learning is based on active inquiry into one's world. Exploratory courses are an obvious fit for discovery learning strategies; however, this strategy should permeate all classes in an Accelerated Middle School. It is learning by doing. Discovery learning can take various forms and can include the steps of defining problems, collecting data, analyzing findings, and drawing conclusions. Discovery learning has many positive effects. It motivates students, can lead to better retention, creates more in-depth understanding, and improves the chances of transfer (Bickel, Leinhardt, and Stein 1989). Some examples of discovery learning are:

- dissecting, dismantling, and constructing objects (e.g., dissecting plant bulbs, assembling electronic equipment)
- conducting experiments (e.g., comparing the effects of exposure to soda, milk, and water on teeth; identifying unknown rocks through physical and chemical tests)
- interviewing individuals (e.g., oral history; opinion sampling)
- measuring and recording (e.g., plotting heat and moisture on weather charts; keeping personal journals).

The discovery process can also include exploration to discover and describe problems, or work in aesthetics to experience and create the beautiful.

Primary sources, personal, community and real life experiences As discussed in the section Accelerated Middle School Curriculum above, accelerated instruction looks beyond textbooks and worksheets to authentic and primary sources such as source documents, magazines, reference books, and personal and community experiences. These sources open up for students greater complexity and detail, contrasting viewpoints, interesting and relevant content, and sophisticated data sources which advanced study requires. For example, students could simulate starting an oil business in Nigeria. This task could include instruction on the metric system, algebra, geography, and business.

Students' personal, cultural, community, and other community and world events are effective as source material for instruction in Accelerated Schools. The rationale is not only that one's own experience is intrinsically interesting, but that it also lays the foundation for understanding more remote ideas and events. Levin and Pressley (1981) have shown how prior knowledge about a subject gives students a context for what they are learning and leads to more effective instruction. Students can study their favorite food, for example, to learn where it comes from, how it is cultivated, who works on it, what nutrients it contains, and how it is packaged, transported, priced, and prepared. Students might study television analogously.

Learning from concrete or immediate experience makes sense to youngsters. This is especially important for those whose homes and communities have not fully exploited the formal educational opportunities in their environment. Helping students see their lives and their personal worlds as amenable to examination and intervention could also add impetus to efforts to revitalize their communities

Hands-on activities and Projects A corollary to making real life the text for study is using concrete objects and sustained projects in those studies. Hands-on activities include use of manipulatives, artifacts, and other tactile experiences to reinforce learning. Projects necessarily involve hands-on activities and are a potentially powerful way of organizing instruction.

A "project" typically means a series of activities related to a single topic, which are directed to a culminating product or performance, and which are produced and monitored in stages. An example of a project could involve each student creating his or her own totally new-to-the-universe creature based on a combination of research and creativity. Students would need to explain what the creature 's life was like including questions of science and astronomy (Where does the creature live? What's his or her home made of?), questions of biology and physiology (What does the creature need to survive? How does its body work?), questions of civics and language (What type of leadership exists where the creature lives? How does the creature communicate?) Writing, research, language reinforcement, and drawing are among the activities which would occur throughout the project's stages.

Expressive modes Accelerated instruction calls on a full range of expressive and other right-brained modes. Movement and music, for example, are attractive means of learning for early adolescents. Moreover, students whose skills are not fully developed may be especially comfortable with these alternatives to print. Even more important, use of various alternative modes may in the end prove more effective than other methods of instruction. Scholarly work on the use of relaxation and suggestion, development of intuition, and diverse learning styles (Noddings & Shore 1984; Lozanov 1978; Dunn & Dunn 1978; Feuerstein 1980; 1979) may be instructive in this regard.

Expressive techniques also reinforce accelerated instruction's positive and affirming climate (Richardson 1988). Part of building on strengths means working from what students know and can do instead of from their weaknesses and failures. The resulting learning itself builds up strength through the realistic, positive self-images and life skills that students will develop (Silver 1987).

Educational technology Computers, the media, and other educational technology can be valuable tools in Accelerated Schools. This said, we note that few schools of any stripe have yet to realize the full capability of educational technology. Technology could enable a French class to watch television shows live via satellite from France. Or, students could produce a short video that presents contrasting views on pertinent social issues. Some other promising applications of educational technology for all students include utilities (e.g., word processing, data bases), micro-worlds and simulations, computer-linked sensors (for making observations and manipulating data), interactive video environments, modeling tools, desk top publishing, and graphics production for displaying quantitative information and embellishing text. In an administrative manner, computers can be used to keep information on teachers and students so that when a transfer takes place, the new school can make educated plans for their new members. Teachers can also use technology to further their Inquiry efforts. Special care must be exercised to avoid overusing technology, and the computer in particular, for drill and practice alone.

Cooperative learning Cooperative learning proper usually denotes a small group of students who complete assignments as a group rather than as individuals. Accelerated instruction makes use of cooperative learning techniques such as small group assignments, pairing, peer tutoring, and cross-age tutoring. The underlying characteristic of these diverse techniques is the active role that students play in instruction. Such activities capitalize on early adolescents' enjoyment of social interaction while focusing their interaction on approved learning tasks. Castenell (1983) has found that cooperation, collectivity, and interdependence can motivate students to achieve academically.

The various proponents of cooperative learning have suggested their own rules or tips for classroom use and have customized activities for various subjects (e.g., Slavin 1983; Johnson & Johnson 1987). Cooperative learning has been shown to positively effect learning, improve race relations, promote acceptance of mainstreamed students, and improve student self-esteem (Slavin 1983).

Peer and cross-age tutoring Peer and cross-age tutoring involve students teaching each other. These strategies have been shown to improve both academic performance and attitudes about learning (Cohen, Kulik, and Kulik 1982). Peer tutoring, for example, may have students in the same class critique each other's compositions. Cross-age tutoring may match younger students with older ones who have already mastered the concepts. Schools can employ these strategies instead of pull-out in the move toward heterogeneous grouping. Also, these practices have been shown to be especially cost-effective (Levin, Glass, & Meister 1984).

Student responsibility for learning A hallmark of accelerated instruction is that students bear some responsibility for their learning. Adolescents, particularly adolescents at-risk, need to become confident that they as individuals can have control over their learning and success through the acceptance of responsibility. While cooperative learning promotes group responsibility, it is also important to promote individual initiative. To promote individual initiative, students could choose themes for interdisciplinary study, work over time on extended projects, and even become involved in their own assessment. Some schools have involved students in determining discipline policies as a way to encourage them to take responsibility for their actions.

Heterogeneous grouping The accelerated curriculum precludes tracking that systematically excludes some students from learning. It follows that accelerated instruction capitalizes on heterogeneous or mixed ability groupings for course assignments and for class activities. Many of the practices described above such as cooperative learning are good strategies for effectively teaching in mixed ability classes. Yet cooperative learning necessitates dividing students into smaller groups. Rather than falling into the conventional mode of grouping by ability in this case, an example of a grouping strategy might be to group according to the color of shirt worn that day or what was eaten for breakfast (Gurskey 1990). This is likely to guarantee mixed ability groups and eliminate chance for tracking. Heterogeneous grouping will also allow for cross-cultural communication, which should produce a more cohesive and equitable school community.

Yet some students need extra time to learn or need materials transposed into alternative learning modes. Although the enriched approach of an Accelerated School should eventually reduce the number and severity of needs for special help, help should always be available for students with special needs. That help should be provided without branding the learner or foreclosing critical learning opportunities.

Instead of pulling students out of class to provide extra help, teachers should employ many of the strategies listed in this section on instruction. Namely, these instructional strategies should become part of teachers' regular repertoire of "tools" so that teaching mixed ability groups becomes a matter of course, rather than extra work. For example, teachers can incorporate cooperative learning and peer tutoring into the regular curriculum and instruction. Using students' own experiences can also spark them to learn and give them a context for the instruction. Teachers can team teach. Other examples of how an Accelerated School can meet special learning needs are: tutoring before or after school, providing extra sessions during the regular school day on a periodic or contracted basis, and substituting tailored activities for other assignments. Finally, any of these supportive activities should be administered for a finite period of time and be as lively and interesting as the other accelerated classroom work.

Alternative Assessment Quality instructional assessment is a key tool teachers must have in to order to provide accelerated instruction. If a school employs any of the accelerated curricular or instructional strategies described above, standardized or traditional assessment tools will not yield very relevant information about student learning. Rather, schools need to draw on the growing body of knowledge on alternative assessment strategies which include portfolios of student work, oral presentations, observations, checklists, questionnaires, interviews and other techniques.

Alternative assessment can provide information on how well a student masters a concept, skill, or body of knowledge and what student attitudes about a lesson are. The particular assessment tool a teacher chooses can mirror the instructional strategy used to teach the concept or skill. If students dissected a frog and learned about the digestive system, the assessment might have students dissect a frog and explain how the system works out loud, rather than answer true-false questions about an activity.

Alternative assessment strategies can also support the different learning styles of students. If a student learns best in an active mode, a teacher could test particular geometry concepts by having the students build and describe three-dimensional shapes. Or, if a teacher wanted to measure a student's oral communication skills, an alternative measure of assessment could involve observing the student interact in a group. Another strategy might be to have the student conduct and record interviews with other students or a parent.

Schools should also consider involving students in the evaluation of their own and each others' work, rather than always relying exclusively on external expertise and authority. This should enhance student responsibility for learning and feelings of self-efficacy.

ORGANIZATION

The organization of schooling refers to the way that time, physical human, and fiscal resources are allocated and interact to produce learning. In this section, we discuss time and the way various actors at the school site, in the school community, and in the school district, are organized, the roles they play, and the relationships among them.

The organization of Accelerated Schools offers a relatively direct contrast to the conventional organization of schooling. Accelerated organization alters the work of the students, parents, all school personnel, the principal, and central office. In conventional school organizations, initiative and authority flow from the central office, to the principal, and lastly to the teachers. Those at the "top" monitor the compliance of those at the "bottom." Accelerated organization not only reverses the flow, it changes the paradigm as well. In an Accelerated School, teacher-led groups initiate plans and the principal and central office staff support those plans through collaboration with those groups and with each other.

Accelerated organization is vital to maintaining an Accelerated School because it provides the impetus and structure for the development of the accelerated curriculum and instruction. The participation, decision-making, and Inquiry Process which characterize that organization give an Accelerated School the self-renewing energy and capacity to remain one.

Table 3 shows the organizational features of Accelerated Schools and examples of contrasting conventional practice. Following Table 3 are fuller descriptions of the accelerated organizational practices listed below.

Table 3: Organizational Practices

Conventional Organization	Accelerated Organization
Parents uninvolved	Parents in partnership
Subject area departments	Interdisciplinary teams or schools-within-schools
Faculty uninvolved in decisions	Committees for Inquiry Process
Principal as manager	Principal as coordinator and facilitator
Central office monitoring of compliance	Central office support of school site
Fixed scheduling	Flexible scheduling
Isolation of teachers	Staff interacts with, coaches, and supports each other
Community relatively uninvolved	Community involved
Middle school in isolation	Middle school in articulation with elementary schools and high schools

Parents in partnership

Parent involvement must play a central role in the Accelerated School – indeed the Accelerated School can only work if parents (or the student's primary care-giver), school staff, and students work together. Epstein (1987) has demonstrated that families play crucial roles in raising the educational accomplishments of their children. Accelerated education connects parents and school staff in a set of reciprocal high expectations. Parents can expect an Accelerated School to provide quality educational services for their children. At the same time, an Accelerated School can expect that parents will collaborate in providing those services. However, schools must make efforts that reach beyond the parents who respond to the first round of phone calls. Effort should be made to include *all* parents. The connection between parents and the school is not simply a preferred situation; it is crucial to creating an Accelerated School.

Essentially, the Accelerated School asks parents to guarantee active support for their children's school experience. Their participation can range over a number of different types (Epstein and Scott-Jones 1989). It is hoped that parents can:

- show high expectations and encourage children to succeed in school
- talk with their children regularly about the importance of school
- provide an orderly space and quiet time for their middle school youngsters to complete homework, read, and do other constructive activities
- assist children with homework and other school assignments
- respond to communications from school about activities and appointments
- supervise youngsters' nutrition and bedtimes

In order to bring children into the educational mainstream, an Accelerated School interacts with parents in a number of ways. An Accelerated School should:

- create an open climate that genuinely welcomes and affirms parents
- provide ample, clear information about student progress
- respond to parents' concerns and ideas
- communicate with parents about the strengths their child possesses, as well as the types of help their child needs
- provide opportunities for meaningful participation in school governance allowing parents to communicate ideas about what type of school they want for their child
- provide opportunities for meaningful involvement in school activities (e.g., instructional or social programs)
- train parents to substantially support their children's education
- communicate school goals and explanation of the logic behind different teaching styles and class activities (i.e. like why so many field trips)

The way a school interacts with parents will vary from setting to setting. Individual schools and parent groups can do more than what has been described above For example, the school can give parents their own room to use as a lounge, library, and meeting space. Parents can act as liaisons to the rest of the school community, coordinating community service for students and marshalling resources for school programs. Parents can develop exploratory courses with school staff, and can volunteer backstage, in the library, on the field, in the halls, or on the bus.

Some Accelerated Schools might even broker health and other social services, lend computers and educational games for home use, or open the school facility for community meetings. Others might schedule early morning, evening, or weekend meetings with parents, or arrange for transportation and babysitting when parents come to school. In still others, the staff may arrange for adult instruction in English, basic skills, or practical problem-solving.

Interdisciplinary teams or schools-within-schools Accelerated curricular and instructional practices assume a congenial school organization that can sustain them. These practices – discovery learning, social skills, interdisciplinary study, projects, and flexible scheduling, to name just a few – can be realized when teachers and students know each other well and work closely together. Teachers' isolation in self-contained classrooms and subject area departments in conventional school organizations preclude adoption of most accelerated practices.

Organizing teachers and students into interdisciplinary teams or schools-within-schools creates smaller and more manageable units that may facilitate these desirable practices. For example, a team might consist of 125 students and a team of five teachers of different core subjects within each grade level. The teams would be housed in one wing or section of a school. The team's teachers would meet daily during a common planning period to to plan, implement, and evaluate shared interdisciplinary units, as well as to discuss student progress and behavior and coordinate projects and schedules. To ensure the team meets the variety of student needs, a student representative could sit in on the team meetings. Teams could regularly extend given class meetings and truncate others, team teach, and combine or exchange students. This type of organization will differ depending on the grade levels at specific schools.

Student advising could also be part of the team's responsibility. Other professional staff, such as administrators, counselors, and specialty teachers, could join the team for this purpose. Each member would meet with a small group of students to explore social, ethical, health, or personal issues for a set amount of time each day. These adjunct team members would attend team meetings periodically to exchange information about student advising.

Schools-within-schools may operate in a similar fashion. Unlike teams, however, they tend to be wholly self-contained units with autonomous administrative staffs. The various schools housed at a site may identify themselves as theme schools (i.e. a health careers school, an aerospace school, a performing arts school). These themes could then color their curriculum, extra-curricular activities, special events, and the sponsors they attract in the community.

The team or schools-within-schools organization sets the stage for other accelerated practices. Smaller school units can foster child-centeredness, help children like school better, and help them identify with the school's goals. Smaller units also make it easier to plan for interdisciplinary study, promote professional exchange and inquiry, and can lead to greater curricular and instructional experimentation.

Committees for Inquiry We described the Inquiry Process in Chapter 2. Here we simply point out some of the contrasts in governance between accelerated and conventional schools. In conventional schools, professional staff discuss or approve school activities; they rarely make important decisions about curriculum and instruction. In Accelerated Schools, professional staff, other site staff, parents, central office staff, and sometimes students meet in small cadres to consider particular parts of school life that they and their colleagues have determined need scrutiny. Cadre members in Accelerated Schools are problem-solvers, not rubber stampers. They analyze data, seek explanations, consider alternatives, and make decisions. They are reflective. The principal and central office staff provide leadership and support but do not direct them in this work. The cadre stays in touch with a steering committee that is composed of teachers, the principal, parents, and possibly a district liaison. When cadre members reach consensus on a course of action, they obtain the steering committee's approval to present their plan and supporting information to the school as a whole.

Following faculty approval, a cadre may pilot its plan as an experimental program and then evaluate the results. The cadre then uses the information to modify its plan. The group then recommends to the school as a whole for or against full-scale implementation. When the concern that called it into being ceases to exist, that cadre disbands and members may choose another piece of the vision on which to work.

Self-evaluation is a prominent and on-going part of Inquiry. An Accelerated School reviews its progress against site and district goals. It also keeps abreast of changes in the school and community that may suggest other problems to examine.

Principal as coordinator and *facilitator* In conventional school organizations, principals wield the formal power at the school site. They sometimes invite the assistance of faculty or parent advisors. But typically, they spend a great deal of time making sure their school is in compliance with local, state, and federal mandates.

A good principal in an Accelerated School is an active listener and participant. He or she is an excellent facilitator of group dynamics, who can identify and cultivate talents among staff and keep the school focused on the mission. The principal must work effectively with parents and community, be dedicated to the students and their success, motivate the various actors, and marshal the necessary resources. The principal must also have keen analytic and planning skills in order to spur the staff to action in the many on-going activities and initiatives of the school, without creating burn-out among staff. Finally, the principal is the "keeper of the dream" helping staff to overcome temporary disappointments or setbacks by maintaining the vision and reinforcing the unity of purpose.

Central office collaboration Especially in large conventional school systems, central office staff usually determine the curricular and instructional practices to be implemented at school sites. Curriculum specialists select and distribute curricular materials to teachers, train them on their use, and may also take part in evaluating teachers' performance. Other central office specialists write or interpret the guidelines for various local, state, and federal programs. They issue mandates about program compliance and then monitor compliance. Their monitoring often takes the form of requiring exhaustive record keeping on peripheral aspects of school programs – a task that consumes vast amounts of the school staff's time and energy.

In an Accelerated School, central office staff *support*, rather than simply monitor, the work of the school community. For example, central office staff may serve on Inquiry cadres where their specialized knowledge can be put to work analyzing school data or searching for relevant improvement strategies. Central office staff might also help schools set goals that are consistent with district goals. They might assist with the design of new curricula and/or the development of alternative assessment tools. They might even help with budgeting or locating additional resources.

The specifics will vary from site to site. The important point is that central office staff must actively contribute their expertise at the school level in order to advance the efforts of an Accelerated School.

Flexible scheduling The departmentalization by subject that governs most conventional schooling locks students and teachers into rigid daily schedules. In contrast, scheduling in an Accelerated School runs according to instructional needs that can and should change from day to day. These varying needs can include such things as: small group and large group instruction, field trips, the un-traditional aspects that will accompany intedisciplinary instruction such as extended classes or individual projects, team teaching, and student advising.

Schools must call on all of their creative resources in inquiring into ways to achieve flexibility – innovative curriculum and instruction depend on it. Without a doubt, a new schedule must include time for teachers to plan together. Team teaching and interdisciplinary units can only occur with common planning time. Some schools have attained flexibility in scheduling by allocating blocks of time for a cluster of subjects to one or more teachers. Another idea that some schools have used is to work out arrangements for students to accrue credits through internships completed outside the school building (business, science, volunteer experiences) during non-traditional school hours. Another option to consider with regard to flexible scheduling is the extended day or year.

Interaction between staff In an Accelerated School, teachers and other staff are brought together by a shared vision. Staff communicate frequently with one another on issues important to the school's mission. Staff members are no longer just the "biology teacher," "the guidance counselor," or "the English teacher." They become a group of professionals working together with others – in team meetings, Inquiry cadres, staff development, and coaching, to improve the education of all students in their school. Their mutual communication and support lead to increased camaraderie and more effective problem-solving.

Community Involvement We suggest a two-way exchange between the community and the school site – a true partnership with mutual contributions. This means that students should go out into the community and the community should come into the school. Students could volunteer their services in the community as well as learn in a variety of community settings. The community (including business, social and heath service agencies, non-profits, and individual community members) could come into the school. For example, business people might volunteer their expertise within the school either in administration or in teaching. A community artist could come into the school and teach art workshops. A local health psychologist could offer services to the students and the staff on a regular basis. This type of community exchange would also result in increased opportunities for adult-student bonding and more open communication between the school and the community.

Middle school in articulation with elementary and high schools Because middle school students enter from elementary schools and depart to high schools, middle schools must articulate and coordinate their programs with both elementary schools and high schools regarding what skills and qualities students bring with them and what students will need when they leave middle school. Accelerated Middle Schools can not be dependent on receiving students from Accelerated Elementary Schools. Therefore, Accelerated Middle Schools should play an aggressive role with the conventional elementary schools in setting out educational expectations and communicating them to elementary schools. For example, if algebra becomes a standard part of the middle school curriculum for all students, Accelerated Middle Schools along with their districts must jointly plan with elementary schools to prepare students to be ready for algebra by the end of elementary school. Middle schools should also provide opportunties for elementary school students to visit the middle school – either in person or by video.

Middle schools should communicate with high schools about both the curriculum and instruction expected at the high school level. Districts will also need to provide assistance in this communication, in that many of the interesting curricular, instructional, and organizational strategies in an Accelerated Middle School may need to extend to the high school level instead of keeping high schools in the forms of mini-colleges.

INTEGRATING CURRICULAR, INSTRUCTIONAL, AND ORGANIZATIONAL PRACTICES INTO AN ACCELERATED MIDDLE SCHOOL

In the preceding sections, we described a wide variety of curricular, instructional, and organizational practices we believe will yield positive learning outcomes for middle school students in at-risk situations. All of these practices are well-documented and none of them are totally new to the field of education. What makes the Accelerated School model new and different is that it attempts to pull all of these good practices together into a cohesive, self-renewing Accelerated School.

Implementing any one of the accelerated practices above may improve a school, yet profound and lasting educational improvement will only result by changing the curriculum, instruction, and organization at once – indeed, systemic change is necessary.

The prospect of changing all three dimensions of schooling at once is clearly ambitious and certainly daunting. However, the Accelerated School principles and the Inquiry Process can serve as vehicles for transforming individual curricular, instructional, and organizational practices into a unified plan for systemic change.

First, the principle of *unity of purpose* serves as an organizer for a school's change activities. Each school community will jointly determine a vision that is unique to its needs. The vision helps schools determine which curricular, instructional, and organizational changes to make. The charts above are not menus from which to randomly order. Rather, they are a compilation of effective practices. Each school must determine which changes it wants to make only as they relate to achieving the vision.

By comparing its present situation to its vision, the school will come up with their own unique areas for Inquiry. These areas will necessarily address the multiple dimensions of schooling. For example, the Inquiry areas of Family Involvement, Mathematics, and Adolescent Development all potentially address curricular, instructional, and organizational aspects of a school.

To envision and implement change, staff members must be able to work productively with each other, with students, and with parents. Moreover, they must actually believe in each other by *building on each other's strengths.* Individuals must believe all students can learn, teachers can teach, and parents can be positive influences. Currently, principals and teachers can readily list the "good" and "bad" teachers and students in their schools. Unfortunately, individuals' names seem to be carved in stone on the "good" or "bad" list; people are believed to either have the ability to teach well or achieve at high levels or not. Middle school teachers must build on the substantial strengths that young adolescents and adolescents at-risk in particular bring to school . Likewise, principals must build on the strengths of teachers as individuals and as members of cadres and the school as a whole. Finally, parents must be treated as part of the solution, rather than part of the problem. Taking advantage of the huge amounts of under-utilized talent at the school site is one of the keys to acceleration.

Becoming an Accelerated School also necessitates the involvement and *empowerment* of those expected to implement the actual changes. Encumbered by district office mandates and regulations, teachers and principals are unlikely to be able to effect broad improvement in their schools and classrooms. School communities, including parents, must have the power to make important decisions and take responsibility for making those decisions. The central office should play a part in the Accelerated School by joining the planning for acceleration and actively supporting change with enabling policies and other assistance. Most important, however, the school community can actively take responsibility for the education of their students by participating in the Inquiry Process at the school site.

Once teachers, parents, and administrators trust each other and gain group decision-making skills, they will be able to work on various parts of the vision in a methodical, disciplined manner using the Inquiry Process (described in Chapter 2). They will address gaps between their vision and their present situation by identifying problems, brainstorming solutions, testing experimental programs, evaluating those programs, and finally, addressing new pieces of the vision. And clearly, each Inquiry group will inevitably address curriculum, instruction, and organization.

A VISIT TO AN ACCELERATED MIDDLE SCHOOL

Having described accelerated principles, the Inquiry Process, and the curricular, instructional, and organizational practices in Accelerated Schools, we would like to offer a vision of an Accelerated Middle School. This school does not yet exist, but we can imagine it.

> The name of our fictional school is Ivy Accelerated Middle School, or IAMS for short. After the faculty voted to become an Accelerated School three years ago, they divided each grade into teams. The sixth grade chose aerospace names, one of which is the Enterprise. The seventh grade named its teams for world explorers: Columbus is one of the teams this year. The eighth grade teams have taken on college names: Morehouse, a historically-Black college, is in current use. The students came up the IAMS acronym and have run a contest each year for a new school motto. The first year they chose: I AM SPECIAL. This year, the winning motto was I AM SUPERLATIVE. Most staff members would agree that the school has come a long way toward making the mottoes come true. Most would also agree that the school still has a way to go.

The IAMS office is crowded at 10:00 a.m. this fall morning. A sixth grader is greeting a guest whom he will escort to the Enterprise team for a presentation on aerospace engineering. The district coordinator for Accelerated Schools has brought a delegation from a nearby school district. The group will talk with the principal after they see the classrooms and sit in on various IAMS meetings. A community service class of eighth graders waits outside while a teacher assistant checks on their bus to the nursing home a mile away. A few minutes later, two peer counselors drop off a note inviting the principal to preview a play they are preparing for a school-wide assembly next week.

In a studio at the far end of the corridor, seventh graders on the Columbus team are designing and constructing models of small boats. Two teachers are present. One, a science teacher, listens to a small group of students work out their plan for an experiment. The other, an industrial arts teacher, is seated before a monitor demonstrating a computer drafting program. A group of students around a table compares notes from a recent lab on water displacement and consults books on the history of naval architecture. The remaining students are preparing materials for mocking-up their design. Some time before the hour ends, a few students set up a video camera to record scenes for their documentary on the boat-building project.

A teacher in a laboratory upstairs has just finished explaining the day's activity to her sixth grade students. In groups they are to perform a series of tests on food according to the laminated instructions at each of their workstations. A few minutes later, the teacher notices that two of the four groups are not on task. In one, students are jostling each other to grab for the instructions, the scales, and the food. In the other, the girls are combing their hair and the boys are comparing baseball cards.

The teacher stifles her instinctive response, which is to stop everything immediately, make everyone sit down, and demonstrate at the front of the room what she was attempting to let the students discover on their own. Instead, she strides to the rowdy group and asks how their work is coming. As she listens to them blame each other for their slow start, she recalls a similar incident in a videotape on constructive classroom behavior that the faculty had seen. "It sounds like you are all excited about doing the job, but haven't figured out how to start yet," she comments, paraphrasing the teacher in the videotape. "What can you do about that?" After a bit more grumbling, the students decide that they should consult the printed instructions, which they do as the teacher goes on the next group.

In another wing of the school, the aerospace engineer has just concluded his remarks to the Enterprise team. A student moderator takes over. Reading discussion ground rules from a 5" x 8" card, she opens the floor for questions. Hands shoot up. The boy she recognizes rises to read aloud a question from his notebook. Behind him, another boy twists and half-stands to read over his shoulder. When he the first stumbles over a word, the second immediately supplies it. The students look attentively to their guest for a response.

A team meeting of teachers is in progress a few classrooms away. Today's agenda for the four members of the eighth grade Morehouse team consists of a routine review of student progress and a review of the teachers' progress on an interdisciplinary unit about community heroes. The teachers first discuss a student who appears to have settled down after a shaky start. "Having him come before school a few times to go over specific assignments really helped," volunteers the English teacher. The science teacher says, "Talking with him and the other kids in the teacher/student advisory sessions about what we're all working on this month also helped." "It helped more than just him," others observe, commenting that maybe they all ought to try discussing curricular themes in teacher/student advisory sessions. "How about telling the school steering committee that we'll experiment with it for a couple of months?" the team leader asks. "We'll have to be systematic about seeing what difference it makes, though, and I'm not sure how to go about evaluating something like this." The social studies teacher recalls that the district coordinator is at the school today. He suggests asking her who from downtown could help. "Or maybe someone in the university group might have some ideas," the mathematics teacher adds.

The students leave at 2:00 to make time for the staff's weekly staff development activities. Every second staff development day is reserved for meetings of Inquiry committees. The teachers jokingly refer to these committees and to the school's Inquiry Process as IQ. "It's a very apt nickname," a teacher is explaining to the visitors whom the district coordinator has brought to sit in on the Adolescent Development Issues committee meeting. "I think of these meetings as somehow being the collective intelligence of the school. The problems we deal with are tough."

The other members of the committee on the Adolescent Development Issues committee smile and nod. In addition to teachers, the committee includes: the cafeteria manager who knows all the IAMS students, the assistant principal for student development and behavior, a parent who works in a community clinic nearby, and two students. "We have a lot to cover today, as usual," a teacher says, calling the meeting to order. "You'll see on the agenda the items we said should be included, as well as a few things the steering committee wants each IQ committee to cover."

One item prompts heated discussion. It is a reminder that the team of university helpers will no longer meet with individual IQ committees, but this year will meet instead with the steering committee and with individual committee chairpersons if they request it. The chair raises her voice slightly and waves her hand for order. "Calm down, everyone. Don't you remember that this was all part of our original six-year plan?"

"I remember," someone answers testily, "but we still need the university folk helping us on the IQ committees. I for one don't have time to be running around for this committee in addition to my own work!" "For me, it's not the running around," a teacher says. "It's how they helped us stay on track. Why, two years ago, it was John who kept the committee on mathematics achievement focused enough to come up with the Family Math program we introduced school-wide last year." The cafeteria manager speaks up, "But remember Brenda's workshop in the beginning? She trained us to work together. I think we can work together to do whatever needs doing now."

The chairperson addresses the visitors. "We hope you don't get the wrong impression. We're definitely not on our best behavior today" – committee members laugh again – "but this is how the IQ process really works. Sometimes we get mad and yell. But we try to remember why we're doing all this. That usually helps us work things out." Committee members murmur their assent. "Mr. Franklin, Joey's father, is here from the downtown clinic to work with us on item four: helping IAMS kids understand sexual development and responsibility," the chairperson announces. Mr. Williams speaks briefly about the incidence of teen pregnancy and sexually-transmitted disease among teenagers in the community. A teacher follows with a preliminary report on commercially-available programs that deal with adolescent sexuality. The committee agrees that it needs more information before it can even define the problem. Members begin identifying ways of understanding the school's particular problems in this area and possible additional sources of information.

Meanwhile, the principal is meeting with another committee. She has just closed the door to muffle the excited shouts coming from the gymnasium where the custodian is leading some of the after-school students through basketball drills. The chairperson calls on her to give the committee members some background on the problem they are to investigate: how to help IAMS' lowest-achieving students.

"The problem we must solve this year," the principal begins, "is helping a group of students who are not achieving in any of their courses. These students – and they're not many, but even a few is too many for the difficulties they're having – are at the bottom on every measure we can track." The principal nods to the district testing and evaluation specialist across the circle of desks. "These kids consistently complete less homework, receive more unsatisfactory grades, and score lowest on our standardized achievement test scores. At the same time, they are of normal or even bright intelligence. Yet when most of our students show improvement, these students don't."

Her eyes search the papers before her. "What needs have we not yet identified? What strengths have we not yet tapped? How can we accelerate the education of these youngsters whom we haven't yet reached?" She looks earnestly around the circle. "How can we help these young people?" she asks. "That is our challenge."

Discussion is animated. Committee members throw out suggestions that include before- and after-school help sessions staffed by regular teachers or college student volunteers, lunchtime adult tutoring, a buddy club of peer tutors, reallocating teacher assistants to core subjects for extra in-class help. When someone suggests providing a separate course of study geared to these students' special needs, the brainstorming stops abruptly.

"But that's going backwards to remedial education," a teacher objects. "Once we get all our slower kids in one place, maybe we can transfer them to Crosstown Middle School," someone jokes, but no one even smiles. "These kids are IAMS, just like the rest of our kids," the principal says matter-of-factly, "and they have a right to be superlative, too."

Another committee member explains, "They won't get the chance to be superlative if we pull them out and give them less to learn. Segregating the lowest-achieving students will take us all backwards. It will cheat them academically and stigmatize them socially. It will cheat the rest of the students, too. Just the opposite of what we're trying to do as an Accelerated School."

"As I see it," the district coordinator says, furrowing his brow, "the challenge is to identify the kids who need help when they need it, and systematically to provide that help on a flexible basis." "Rigid flexibility, you mean," someone remarks with a chuckle. This time, a few committee members do smile. "Rigid flexibility," an English teacher echoes, reaching for her planbook. "Another oxymoron for our team's collection."

The discussion in this and the other IQ committees continues until 4:00. By the time the meetings break up, the after-school students have switched activities. Those who were in the gym are now in the library doing homework, reading, or playing quiet games.

At 5:00, the principal and committee chairperson walk toward the parking lot still talking about the meeting on low-achieving students. They are greeted by some parents and students who are just arriving, laden with covered dishes. "I have to pick up some materials downtown, but I'll be back for the supper and program," the principal promises. One of the parents replies, "Looks like we'll have a good crowd tonight."

Chapter 5

CHALLENGES AND NEXT STEPS

In the preceding chapters, we have explored how the Accelerated School model could apply to the transformation of middle schools. In Chapter 1, we provided a brief overview of the demographic and social challenges of students caught in at-risk situations. In Chapter 2, we described the failures of many schools to educate students at-risk and we offered the Accelerated School response. In Chapter 3, we examined what is known about the physical, emotional, and intellectual development of early adolescents and the ramifications of this developmental stage for middle grades education. We also reviewed recommendations in recent reports that advocate middle school reforms. In Chapter 4, we described curricular, instructional, and organizational dimensions of an Accelerated Middle School in both an expository and a dramatic narrative format. We also proposed ways in which these practices could be integrated into a unified whole. All that would appear to be left is to invite schools to go ahead with acceleration. But we realize that no school change effort executes itself, least of all the transformation that acceleration requires.

The purpose of this final chapter is to explore the challenges and next steps in moving from the design to the implementation of Accelerated Middle Schools. Moving from a design to real world implementation demands considering the challenges in two ways. First, we must conceptualize the challenges schools may face as they decide to become Accelerated Schools; and second, those at the school site must react to the design and set out other challenges.

In this chapter, we describe the challenges from these two perspectives. In the following section, we set out conceptual challenges drawn from our experience working in Accelerated Schools which we believe schools must address successfully if they are to become Accelerated Schools. The next section reports the results from focus groups which we held with teachers, principals, and central office administrators in three urban districts around the country. The focus groups' input gave us valuable insight into the day-to-day challenges schools may face in their move toward acceleration. We conclude the chapter by setting out our next steps in meeting these challenges which include working with a pilot Accelerated Middle School.

CHALLENGES

What makes acceleration so promising – the comprehensive approach addressing all three schooling dimensions at once – is precisely what makes it so challenging. Simply placing successful curricular, instructional, and organizational elements designed for an Accelerated Elementary School into a middle school is not the answer. Clearly, the level of schooling called middle school differs from the level called elementary school along the dimensions of curriculum, instruction, and organization. Along curricular lines, middle schools teach more advanced subject matter and must articulate between both elementary and high school constraints. Along instructional lines, middle schools use more "bookish" methods and less hands-on activities – sometimes in an attempt to emulate high school and college instructional strategies. Along organizational lines, middle schools are generally much larger and departmentalized, and teachers often teach a single subject. Time is scarce, and parents are relatively uninvolved.

All of these differences translate into challenges middle schools may face as they work to transform into Accelerated Schools. For instance, the fact that middle schools are larger than elementary schools has implications for school governance structures, curriculum development, and instructional strategies. Below, we set out the challenges middle schools will face in transforming themselves into Accelerated Schools. Only by working over time with practitioners can we come to the most appropriate solutions for these challenges and make the Accelerated Middle School a reality. Moreover, there are multiple "right" answers about how to address the challenges, and we expect different Accelerated Middle Schools to approach the challenges in a variety of ways. Each school will build on different strengths and reach success in unique ways.

While schools will indeed develop unique models of success, we believe they will still face a host of challenges along the way. We offer two complementary perspectives on the types of challenges middle schools will face in their move toward acceleration. First, we offer conceptual challenges set out by those who have worked in Accelerated Schools, and second, we set out the challenges offered by those at schools sites around the country.

CONCEPTUAL CHALLENGES

We have organized the following challenges by three schooling dimensions – curriculum, instruction, and organization. We begin with organizational challenges since those will be the first challenges a school will encounter.

Organizational Challenges

Organizing a group of educators to think about changing the way members of their profession have behaved for over a century presents a formidable challenge. Any staff organizing for change should keep the principles and values of acceleration in mind as they address the following challenges:

deciding on a unity of purpose–Elementary and middle schools face an overall challenge of translating a patchwork of improvement ideas into a unified plan for systematic change. Many schools have worked to incorporate new programs and ideas, yet they do not see student outcomes as a result of their efforts. An Accelerated School's unity of purpose focuses the staff on the mission of the entire school rather than the agenda of a particular department or improvement program. The unity of purpose sets up a framework for a school community to build on each others' ideas and efforts.

The actual process of establishing a unity of purpose and discussing school goals provides a forum for important communication between previously isolated parties. In most schools, any given staff member typically functions largely independently of other staff. Moreover, the staff as a group rarely seek a collective vision. Because of the larger size and departmentalization of middle schools, middle school staffs may find it difficult to agree on a unified purpose. Although this challenge may be a difficult one to overcome, we believe that we can benefit from some of the techniques that we have used to establish unity of purpose in Accelerated Elementary Schools that have been beset by internal rifts and divisions.

setting up a structure for school governance–The process of developing a governance structure for Accelerated Middle Schools composed of the school as a whole, a steering committee, and cadres will present a challenge due to the middle school's size, the departmentalization, and the short supply of parent and community participants. Middle schools are generally larger than elementary schools and almost invariably have more students per grade level. Also, teachers usually identify with a given team or subject area. These factors will make it more difficult to establish regular communications about schoolwide issues among staff and between staff, students, and parents.

The sheer numbers of people involved in the decision-making process could also make it more difficult to reach consensus on school decisions. In this respect, it may be necessary to try different strategies for organizing staff into cadre groups, involving the community, and establishing communications among them.

implementing the Inquiry Process–The Inquiry Process used by the school's cadres is the primary mechanism for long-term problem-solving in both accelerated elementary and middle schools. It is ironic that this process which is so crucial to acceleration should be so challenging to put in place. The reason for this challenge is that the Inquiry Process demands a variety of resources and a set of skills that are usually in short supply in conventional schools. The necessary resources include time and a broader set of participants (parents, community members); the necessary skills include group process and problem-solving skills. These "sub-challenges" are described below.

1. *creating change with a scarcity of time*–Time is a scarce commodity in all schools. However, middle schools generally have more time than elementary schools in their daily schedules for teachers to work with each other collaboratively –either six periods a day with one period for "prep" time or seven periods a day with two periods for "prep" time. Even with the preparation periods, middle school staffs still find it difficult to find common time to meet, to develop ideas, to reflect, to experiment, and to evaluate. Yet these are the very activities of the Inquiry Process. Some individual activities, like reflection, may almost be defined by the amount of time they take. Others take time because they are part of the Inquiry Process's special sequence of problem-finding and problem-solving. In schools, both the scarcity of time and the devaluation of activities that take time contribute to the difficulty of implementing the Inquiry Process.

Middle schools should prioritize their free time for meetings of task groups, staff collaboration, and research for the Inquiry Process. They should also find ways to use their staff development days and regular faculty meetings to support outgrowths of the Inquiry Process. Although time may still be scarce relative to the needs for staff interaction outside of the classroom, the middle school will have fewer stringencies with respect to time than elementary schools, which have found ways to take part in on-going Inquiry.

2. *gaining the participation of parents and the community*–Parents and community members are not typically invited to help make major decisions in schools. Central office staff are also not usually present, or at least are not present in an appropriately supportive role. While teachers may be available under

constrained time conditions, other school staff such as the custodian or cafeteria manager may not be. Involving these parties presents a challenge to educators at all levels of schooling.

Principals and school staffs may be able to incorporate support staff and central office administrators simply by inviting them to meetings. We discussed central office involvement and support more fully in Chapters 2 and 4. Parents, however, may be the most difficult party to involve. Elementary school students normally respond positively to the presence of their parents at the school as well as parental assistance in the home. Unfortunately, adolescents do not usually feel as comfortable about parental participation in either the home or school. As adolescents begin to develop independence from their parents, they do not want their parents to be deeply involved in every aspect of their lives. They may be embarrassed at the presence of parents at the school site and even feel that their parents are "spying" on them, while at the same time silently appreciating the interest that their parents are taking. Some schools may also have challenges in getting school staff and parents to communicate effectively. Parent involvement at the middle school level should build on the successful practices at the elementary level and successful practices at some middle schools, while taking account of changing parent-child relations.

3. building group process and problem-solving skills-It is not only difficult to bring the appropriate people together at one time, but mistrust and hostility sometimes prevent them from participating constructively. The willingness to participate in an improvement effort seems to require faith in the integrity of the process and in participants' ability to work productively. Empowering participants with group process skills, such as active listening and negotiating, can potentially set aside some of the barriers otherwise blocking implementation of the Inquiry Process.

Even when assembled and ready to participate constructively, school staff, parents, and community members generally lack experience in the Inquiry Process's systematic approach to problem-solving. Participants undoubtedly bring other, shorter-term problem-solving skills. But it may be that the accompanying expectation for quick, apparently efficient solutions will initially interfere with their appreciation of the more protracted, deliberative Inquiry Process. Assurances from external collaborators may help overcome this barrier, but perhaps only personal engagement and success with the process can fully remove it.

Curricular Challenges

creating and implementing accelerated curricular practices–Middle school staffs will be challenged to identify and/or create pertinent curricula for accelerating student achievement. Middle school educators must work to utilize enriched curricula with demanding content; curricula that draw upon the experiences and cultural backgrounds of students; and interdisciplinary curricula that integrate learning in different subject areas. Integrating the arts and movement into regular classroom instruction will also prove challenging to many. While educators could learn about how to identify and create pertinent curricula through training in departmental groupings of staff, interdisciplinary and integrative learning will clearly require grouping curriculum development tasks ***among*** departments as well.

integration of subjects across curricular areas–Middle school educators are likely to be particularly challenged by the design and/or implementation of interdisciplinary projects and lessons, since they teach more advanced subject matter and tend to be subject-oriented rather than student-oriented. We believe that important breakthroughs have been made in these areas that can be applied to Accelerated Middle Schools. However, it will be important to consider how to persuade subject-oriented teachers that the integration of subjects and active learning are not just effective with young children, but for all learners.

articulating information between elementary and high school–Accelerated Elementary Schools articulate their curricula primarily with the middle school. But, middle schools must coordinate their curricula and other activities with both what is done at the elementary school and at the high school. This means that middle schools will have to look closely both at the experiences of students in elementary feeder schools (of both conventional and accelerated types) as well as at the requirements high schools make of academically-able students. In this sense, the Accelerated Middle School must be viewed as a transitional middle school in which the outcomes of elementary schooling will be used to build an accelerated set of experiences to bring students into the secondary school academic mainstream. Clearly, middle schools will require considerably more study, articulation, and coordination than is required for Accelerated Elementary Schools.

Instructional Challenges

pursuing effective instructional strategies–Both Accelerated Elementary and Middle Schools need to pursue active learning strategies, cooperative learning, discovery learning, alternative assessment strategies, and other accelerated instructional strategies described in Chapter 4. The Accelerated School does not offer a "cookie cutter" approach to instruction; rather the use of innovative instructional strategies should result from attention to the accelerated principles and practice of the Inquiry Process. A school's Inquiry may reveal extremely strong instructional strategies inside the school building; in this case, the challenge is to expand on isolated successes so that they become schoolwide successes. The accelerated instructional strategies will be applied to a wider variety of subjects taught at a higher level of difficulty, thereby making the application of the strategies more challenging. Moreover, the more innovative practices may directly contradict established technocratic norms. Teachers who have taught in a lecture style for many years will need support in developing more varied and motivating instructional strategies.

Other Challenges

The prior school experience of early adolescent students may present bigger challenges to middle than to elementary schools. Students may come to middle school already discouraged by school failure. Adolescents are also at a stage where they may begin acting on their increased opportunities for substance abuse and other self-destructive behaviors.

The focus groups identified additional challenges which are disscussed in the following section.

"REAL WORLD" CHALLENGES

In this section, we will indeed discuss the challenges, as described by the focus groups, which schools will face in their move toward acceleration; however, we would like to provide these challenges in the context of the focus groups themselves. Therefore, we offer the following as background.

We conducted three focus groups across the country – one in Boston, Massachusetts (Boston Public Schools), one in Oakland, California (Oakland Unified School District) and one in San Jose, California (San Jose Unified School District). In Boston, the focus group consisted of six individuals from a single middle school including the principal, teachers, the guidance counselor, and an instructional coordinator. In Oakland, the group consisted of a mix of ten individuals from across the district including teachers, central office administrators, and the superintendent (for a short time). In San Jose, the group consisted of thirteen individuals (teachers and building administrators) from three different middle schools in the district. Following is a description of the methodology used in the focus groups and what important information came out of them.

Methodology

We asked the participants in each focus group to read the first draft of "Toward Accelerated Middle Schools for At-Risk Youth" prior to attending the meeting, so that we could concentrate on responses to and suggestions for Accelerated Middle Schools in the session. Both the Boston and San Jose groups had read the report. Because of a mix-up, the Oakland group had not read the report.

In the focus group sessions, we set out four activities. First, we asked the participants to create their "dream" middle school. Participants could work individually or in pairs to either write or draw a pictorial representation of what their dream school would look like. We told the participants that the schools they create should reflect their dreams and need not include elements of the Accelerated School model. We also asked the participants not to be constrained by any present circumstances. At the end of this stage, participants shared their dream creations with the whole group. We compiled a list of common elements among all of the dream schools on chart paper in the front of the room. Participants "ratified" the compiled list of common elements as representative of their dream middle school creations.

Second, we asked the participants to identify possible "real-world" obstacles (challenges) that would interfere with the creation of the dream middle schools. We recorded their responses on chart paper in the front.

Third, we asked the participants to brainstorm possible solutions that might help overcome the list of obstacles.

Finally, we asked the participants for their responses to the paper, "Toward Accelerated Middle Schools for At-Risk Youth" (although the first three activities served this purpose as well).

In the following sections, we have compiled and synthesized the responses from all three focus groups. The reason we have put all three focus groups' responses together is that the responses were much more similar than they were different from each other. Moreover all of the dream school characteristics set out by the focus groups supported the Accelerated Middle School model. We viewed Oakland coming in with a "clean slate" as a strength in that their dream school creations would not be biased by having read the concept paper. The fact that the Oakland group created such similar dream school elements without reading the report encouraged us that the vision of the Accelerated Middle School was consistent with the dreams that were in the hearts and minds of those at the school site. We will now turn to a description of focus group responses to the four activities listed above.

Step One: Creating the Dream Middle School

We have organized the focus group dream school characteristics into the following *rough* categories. We are pleased that the Accelerated Middle School model captures these characteristics. Please note that there is overlap between the categories.

Curriculum and Instruction

- Interdisciplinary instruction across all areas of curriculum.
- Staff integrated in order to plan, implement and evaluate interdisciplinary curricular units.
- Thematic units throughout the curriculum (mini-units or year long units chosen jointly by students, parents, and teachers).
- Core curricula should include equal expectations for all students to cover basics even through newly created interdisciplinary coursework.
- A variety of teaching styles should be utilized and accepted.
- Students should learn with hands-on activities (learn by doing).
- Practical, everyday manipulatives should be utilized.
- Exploratory teaching and learning for all students. The core curriculum and the exploratory would overlap, so that potentially different subjects could be taught.
- Students should see the "real world" vicariously and actually in all areas of instruction.
- Classes could be held off-campus to help reinforce learning and help make information real to the students.
- Curriculum should include career components
- Clubs may be an opportunity for teachers to teach out of their subject area and even include elementary teachers.
- Career education and electives should be made readily available to all students (e.g. vocational education, family life classes, photography)
- Positive learning environments should be created.

Curriculum and Instruction *(continued)*

- Projects should be used to facilitate learning. (Projects should address multiple skill development such as science skills, writing skills, and creative reasoning.)
- All classes should be heterogeneously grouped. There should be no pulling out.
- There should be a fully staffed Arts and Music program.
- Social skills should be emphasized.
- Foreign language should be a part of the core curriculum.

Scheduling and Organization

- Flexible scheduling would allow teachers to teach at the most teachable moments and decrease the factory-like approach to school.
- There should be opportunities for small and large classes (to accommodate seminar/discussion groups, activities, and large lectures).
- Schedules should allow students to leave campus for instructional opportunities outside of school. For example, one teacher preferred to teach his government class at the courthouse. Others may want to create opportunities for students to have regular, independent learning experiences in the community.
- Inquiry should be allotted a regular time.
- Team teaching should be supported in the schedule.
- Schools want to re-organize from departments to interdisciplinary teams.
- There should be allowances in the schedule for activities that stimulate curiosity.
- Schools could move to an extended day or an extended year schedule.
- Schedules should allow for a wide variety of field trips that are both integrated with the curriculum and simply for fun.
- Assemblies should occur often and should include student designed productions and outside speakers.
- Seventh grade teams could keep the same students when they become eighth graders.

Parents

- Parents should be contacted for information and ideas.
- Schools should offer parents training in ways they can support their children's education.
- There should be training in parenting skills (Participants noted that many parents are young themselves and have had no training in how to parent.)
- Schools should exhibit high expectation of parents.
- Schools should offer opportunities for parents to come to the school and discover what is good about their kids and the school in general.
- Parents who have been turned off by their own school experiences can be turned around by something as simple as a phone call.
- A parent lounge should be included on the school campus.

Parents ***(continued)***

- Schools may consider hiring a full-time parent liaison who is responsible for keeping in contact with the parents.
- There should be an overall sense of welcome to the parents and the school should have an open feeling.

Bonding Between Adult and Student/Socialization

- Adults should be seen as active child advocates.
- Adults should actively serve as role models for students on a daily basis.
- Personal and interpersonal issues should be integrated throughout the curricular areas.
- Peer counseling should be made readily available.
- Students should have opportunities to talk in groups about issues they feel are important.
- There should be plenty of opportunities for adults and students to bond.
- The school should have an atmosphere similar to that of an extended family.

Administrators and the District

- Principals should become involved in the educational process.
- The district should provide adequate resources for all schools.
- Schools should have a stable budget each year and have control over the use of that budget.
- The district should be receptive and responsive to school needs.
- The district should actively support the school.
- District representatives should be included in a school's training and be supportive of their change processes.
- Districts should offer schools incentives and monetary awards.

Student Needs

- All student needs should be met. These include academic, social, emotional, language, and cultural needs.
- There needs to be a general acceptance of differences. Schools should build on the diversity of students as a strength.
- Self-esteem needs must be met through making the school a place students choose to be.
- Students should be allowed to give input on curriculum and interdisciplinary activities.
- Transient students should be kept track of through detailed computer networks so that a student who moves across the district does not get "lost."

Staff Training , Meetings, and Planning

- Staff development should be an on-going process rather than a one-day deal.
- Staff should make important decisions about curriculum, instruction, and organization through the Inquiry Process.
- There should be structured and regular time for meetings. (meetings for inquiry, meetings with colleagues; meetings for staff development in areas the teachers select, etc.)
- Different models should be utilized to achieve these meetings. (For example, one team could double as an Inquiry and interdisciplinary team. There could be separate Inquiry and interdisciplinary teams, etc.).
- Teams should be created to plan, implement, and evaluate interdisciplinary curricula based on student interests.
- Student representatives need to attend some meetings in order to give input into curriculum, instruction, discipline, and school activity issues.
- Training should be provided in problem-solving skills.
- There should be a school-based management team to provide local control.
- There should be opportunities for faculty to explore other areas of teaching outside their certified area.
- Team teaching could involve joint planning between a resource teacher and a math teacher, a math and a science teacher, or full interdisciplinary teams.
- Pre-service training for middle school teachers should be developed.

Vision

- Everyone should know the vision and it should be posted everywhere as a constant reminder.
- All staff should work toward the vision including the classified staff.
- There should be cooperation of all parties involved and communication between teachers, parents, students, the district, and the community.

Facility

- Space should be provided for meetings of small and large sizes.
- Creative alternatives to building shape (e.g. U-shaped school).
- Rooms should be provided for active learning activities.
- The physical plant should be attractive and pleasant. It should include spaces for teachers to meet, labs, computer rooms, arts rooms, dancing rooms, music rooms, spaces for extracurricular activities and student support services, and a quality teachers lounge.

Community

- Create a two-way exchange between the school and the community.
- Community should be broadly defined to include businesses, public agencies, individual community members, and non-profit groups (such as arts groups).
- Children can perform day-time community service and the community can open up their premises for student visitation and learning.
- The following agency staff should be accessible: social services, health services, psychologists, and bilingual specialists, and counselors.
- Private businesses should encourage the use of their facilities.
- Community members could create community corps to organize their contributions of time and resources to the schools.

Staff

- An attempt should be made to keep school staff intact. There should be effective ways of dealing with transiency (e.g. create a computer network to file staff information.)
- There should be specialized training for middle school teachers and support for burned-out middle school teachers.
- There should be flexible staff people on campus as full-time staff. They could act as super-substitutes or coordinators.

Accessibility to Technology

- Television, cable, video should be made readily available to teachers.
- There should be computers in all the classrooms with high order programs – no workbooks on computers.
- Technology should be used a tool to facilitate and accelerate learning.
- Computers could be used to create a curriculum networking system throughout all the middle schools.
- Computers can also be used to keep track of students from school to school.

Step Two: Obstacles to Creating Dream Middle Schools

Listed below are the obstacles/(challenges) the focus group participants brainstormed as getting in the way of achieving their dream middle schools.

- Money
- Time
    1. Bias for agrarian calendar
    2. No built in time for planning (other than accidentally meeting in the bathroom!)
- Tradition
- No problem-solving skills
    1. No group skills
    2. No opportunities for coordination

Obstacles to Creating Dream Middle Schools (continued)

- Attitudes and Expectations (Assume the worst of students, parents, and district)
- Neglect of middle school student age
    1. No teachers are trained to be middle-school teachers.
    2. No pre-service (unhappy elementary or high school teachers).
- Commitment to long-term goals? (need to make sure program gets institutionalized)
- Risk-taking ability/flexibility
- No ownership of problems
- Students who have experienced failure
- Bussing (Even if there is an extended day, kids have to leave at 3:30 on bus)
- Testing
- Lack of district support
    1. Misplaced district priorities
    2. The bus schedule rules everything
    3. Utilize itinerants to save money which leads to transiency of staff
- Transiency of teachers and students
- Lack of appropriate types of staff
    1. Counselors/psychologists
    2. Nurses
- Parents - lack of involvement and need of support
- How to unify staff, parents, etc. around a vision
    1. Departmentalization
    2. Money
    3. Time
    4. Trust
- The Contract
- Leadership
- Trust/Respect among staff and outside experts
- Is This Just Another Reform Effort?
- A Road from Here to There... How do we reach our dream middle school.
- Personality and chemistry in designing interdisciplinary teams
- Articulation between elementary and high-school

Step Three: Ideas of Ways to Overcome the Obstacles to the Dream Middle School

Focus group participants brainstormed about solutions to overcoming the obstacles. The focus groups did not have enough time to develop ideas to meet all of the obstacles. Therefore, we have only listed the obstacles they addressed below (in bold). Clearly, it will take more than a focus group session to devise ways to overcome these obstacles. *(Note: Because the Oakland focus group included central* *office participants as well as teachers and principals, they had the unique opportunity to reflect on these obstacles and engage in problem-solving activities in support of schools.)*

- Time
    1. **Bias for agrarian calendar**
    2. **No built in time for planning (other than accidentally meeting in the bathroom)**
    - Have year round instruction including summer.
    - Inquiry and Interdisciplinary groups don't have to meet at the same regular time. Perhaps they could meet at different times. One cadre may meet in the early morning; Another could meet after school. Common free time could help in devising the teams.
    - Pay staff for summer work.
    - Give mini-sabbaticals for teachers.
    - Create common planning time period for whole staff and for interdisciplinary teams.
    - Add time to each day and then chunk it into common teacher planning time. (Parents might like having a set time to take the kids to the dentist, etc.)
    - Add a period each day.
- **Attitudes and Expectations (Assume the worst of students, parents, and district)**
    - Expose staff to situations that are currently working in order to give them hope. This is parallel to the active learning on the part of students. Allow burned-out staff to actively learn that there are better ways.
    - Give credit where credit is due. Recognize excellence.
    - Provide psychological support to teachers in need.
    - Practice the principles of empowerment and building on strengths.
    - When you ask for input from teachers, students, and parents, etc. – LISTEN to it.
- **Neglect of middle school student age**
    1. **No teachers are trained to be middle-school teachers.**
    2. **No pre-service (unhappy elementary or high school teachers).**
    - Highlight positive attributes of adolescence. (e.g. Adolescents are developing a capacity to deal with abstract thought, they are extremely curious, and they are able to have an ability to be silly. All of these can be channeled into learning.)
- **What about commitment to long-term goals (how to ensure program gets institutionalized)**
    - Involve all parties in the beginning in creating a vision. Let parties know they are empowered to make change.
    - Involve people in planning, don't simply ask for answers or help at the end of a long decision-making process.

- **Students who have experienced failure**
  - Provide support, individual attention, rejuvenation.
  - Interdisciplinary curricula and active learning could be new turn-ons to school for these students.
- **Lack of district support**
  1. **Misplaced district priorities.**
  2. **The bus schedule rules everything**
  3. **Utilization of itinerants to save money which leads to transiency of staff**
  - Ask district to stop doing things that don't relate to children's education.
  - Clarify goals with district.
- **Transiency of teachers and students**
  - Create a computer network of teachers.
  - Offer three-year contracts for teachers at the initiation of an Accelerated School.
- **Parents - lack of involvement and need of support**
  - Use students to recruit parents.
  - Allow parents to become involved in things that they like to do and are good at.
  - Create positive opportunities for substantial involvement – tell them how much their child is enjoyed.
  - Involve them from the start (builds ownership.)
- **How to unify staff, parents, etc. around a vision**
  1. **Departmentalization**
  2. **Money**
  3. **Time**
  4. **Trust**
  - The departmentalization and trust issues can be overcome with money and time. (Money to provide the time to meet regularly).
- **The Contract**
  - Teachers and District need common goals from start.
  - The contract needs to be more flexible.
- **Articulation between elementary and high-school**
  - Hold discussion groups at end of elementary school with middle school staff at elementary site, then at middle school site.
  - Elementary students come to middle school for some activities.

Step Four: Comments on the Actual Document

The focus group participants received the document extremely well. Some participants referred to it as "the book." Others had taken up to 35 pages of notes. In any case, the feedback was overwhelmingly positive. The concept for an Accelerated Middle School seems consistent with what those at the school site want and what some of them are already doing. Some of the specific comments follow:

- Participants were unyieldingly interested in taking on the Inquiry Process.
- Participants wanted to re-organize for interdisciplinary instruction.
- While many participants felt the imaginary school helped them to visualize a radically different school situation – especially the teacher Inquiry meetings – others disliked the imaginary Accelerated Middle School. They suggested replacing it with good practices that actually exist.
- Participants wanted the point to be made that some conventional curricular, instructional, and organizational practices are indeed okay and not all bad.
- Participants saw the model as a road from "here to there." *(This bodes well for the resource guide to follow which will be much more geared toward implementation).*
- Participants felt they supported the accelerated principles, values, and curricular, instructional, and organizational practices.

Final note on focus groups

The focus groups provided the reality-test we were looking for. They were lively and embodied many of the values of acceleration – communication, participation, risk-taking, etc. One of the most memorable charactistics of the groups was how much fun they were for us.

We asked if any of the focus group participants would be interested in working on the resource guide. Many are interested and we will contact them to work with us. Finally, the focus group participants asked to be included in the fall training. We are in the process of working out the logistics of such follow-up.

The challenges to acceleration are substantial. The experience of the elementary pilot schools convinces us, however, that middle schools can meet the challenges. In the next section, we set out a plan for addressing these challenges and creating an Accelerated Middle School.

NEXT STEPS

The challenges schools will face in becoming Accelerated Middle Schools are similar to those of trying to shift to the more ideal middle school with its tenets of high support, high expectations, and high content. In a sense, the Accelerated School model represents a vehicle that can carry that transition because of its integration of curriculum, instructional strategy, and organization; its focus on a unity of purpose, empowerment, and building on strengths; and its active partnership of parents, staff, and students. These elements and principles provide cohesion and direction to the Accelerated School strategy and appear to be appropriate for moving to Accelerated Middle Schools. The specific steps we will take to create Accelerated Middle Schools follow.

First, using this edition of the "Toward Accelerated Middle Schools" and the challenges outlined above, we will create a resource guide and accompanying training materials for middle schools interested in becoming Accelerated Schools. The resource guide will provide a comprehensive source for schools on the philosophy, purpose, and various dimensions of establishing and operating Accelerated Middle Schools. The guide will offer various solutions and strategies for addressing the challenges outlined above. The training will build the capacity of the middle school to undertake the transformation to and maintenance of an Accelerated School.

Second, we will test the resource guide and training program by: (1) submitting a draft of the guide and training materials to an expert panel of practitioners for review; and (2) providing a two-day training workshop for three middle schools around the country. We will ask each school that goes through the training to evaluate the guide and training, so that we can further improve the materials. Third, we will provide more extensive training to one of the three schools. The more extensive training will take the form of technical assistance to the staff and community in becoming a pilot Accelerated Middle School. Since the training will be on-going, we have plans to work with a pilot school in the San Francisco Bay Area.

Finally, we will provide a host of support and information to those attempting to improve middle schools nationwide by: (1) distributing papers on individual aspects of the Accelerated Middle School; (2) presenting at conferences; (3) presenting at individual schools and districts; (4) presenting to the ASCD network of 20 schools; (5) providing a five-day training program for ASCD network schools. The five-day training program will equip core teams from schools with a detailed strategy for becoming Accelerated Middle Schools.

As educators, it is up to us to seize the moment of early adolescents' openness and excitement. For this is the pivotal time to influence them to pursue positive and productive futures. The Accelerated School is designed to give students something to say "yes" to. No student must ever feel his or her background is a restriction on the possibilities of the future. Rather, students must learn to utilize their own skills and talents to succeed in school and later in society. Students need opportunities to participate in activities that are meaningful as well as enjoyable to them. We believe the Accelerated Middle School can provide these opportunities.

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